**Air and Radiation Division**
**Region 5**

# Wisconsin State Implementation Plan

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**Federal Citation Number:**
**410.01**

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*Main Heading:* Air Permit Fees
*Subheading:* Applicability; Purpose
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**Regulatory Text**

NR 410.01 PURPOSE. The purpose of this chapter is to establish, pursuant to s. 144.399, Stats., the requirements and the procedures for the payment of application fees and implementation and enforcement fees by persons who are required or authorized to obtain air pollution control permits.

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**Regulatory Text**

NR 410.02 APPLICABILIITY. This chapter applies to all persons who are required or authorized to obtain an air pollution control permit for the construction, reconstruction, replacement or modification and operation of an air contaminant source and to all persons who own or operate an air contaminant source for which an air pollution control permit has been issued.

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**410.03**

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**Regulatory Text**

NR 410.03 DEFINITIONS. The following definitions are applicable to the terms used in this chapter:

(1) "Air contaminant source" has the meaning designated in s.144.30(2), Stats.

(2) "Air pollution control permit" has the meaning designated in s.144.30 (3), Stats.

(3) "Basic emissions unit" has the meaning designated in s. NR 154.01 (27m).

((4) "Best available control technology" or "BACT" has the meaning designated in s. 144.30(9), Stats.

(5) "Emissions offset" means the reduction of emissions from existing sources to compensate for the increase in emissions from the construction, reconstruction, replacement or modification and operation of the source which is the subject of the permit application.

(6) "Environmental assessment" has the meaning designated in s. NR 150.02(8).

(7) "Lowest achievable emission rate" or "LAER" has the meaning designated in s. 144.30(15), Stats.

(8) "Major source" means any stationary source which is a nonattainment area major source or an attainment area major source under the criteria in s.144.391(1)(a) or (2) (a), Stats.

(9) "Minor source" means any stationary source which is not a major source.

(10) "Modification" has the meaning designated in s. 144.30(20), Stats.

(11) "Nonattainment area source" means any source which is located in a nonattainment area or which may affect significantly the air quality in a nonattainment area and which, considering air pollution control equipment, is capable of emitting an air contaminant for which the area is classified as a nonattainment area.

(12) "Person" has the meaning designated in s. 144.01 (9m), Stats.

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**Regulatory Text**
NR 410.04 APPLICATION FEE.

Except as provided under s. 144.399 (3)(a), Stats., any person required or authorized under s. 144.391, Stats., to obtain an air pollution control permit shall pay an application fee, consisting of the sum of the basic fee under sub. (1) and any additional fees under sub. (2).

(1) BASIC FEES. (a) Except as provided in par. (b), each person who applies for and is issued an air pollution control permit for which an application fee is authorized shall pay a basic fee according to the following amounts:

1. $1,050 if the permit is for the construction or replacement of a minor source;

2. $800 if the permit is for the modification of a minor source;

3. $2,550 if the permit is for the construction, reconstruction or replacement of a major source; or

4. $1,400 if the permit is for the modification of a major source.

(b) The basic fees prescribed in par. (a) shall be reduced by the following amounts:

1. $100 if the permit applicant publishes the class 1 newspaper notice required under s. 144.392 (5) (c), Stats., and

2. That portion of the amount of any environmental impact statement fee assessed under s. NR 150.11 which related to an air quality analysis as required under s. 144.399 (2), Stats.

(2) ADDITIONAL FEES. In addition to the basic fee prescribed in sub. (1), each person who applies for and is issued an air pollution control permit for which an application fee is authorized shall pay the following applicable additional fees in the amounts indicated:

(a) $250 if the permit application requires the review and analysis of 2 or more basic emissions units;

(b) $200 if the permit application is for a nonattainment area source;

(c) $800 if the permit application is for a source which requires an emissions offset;

(d) $1,500 if the permit application is for a source which requires a BACT or LAER determination.

(e) $500 if the permit application is for a source whose projected air quality impact requires a detailed air quality modeling analysis;

(f) $500 if the permit application is for a source which may emit a toxic or hazardous substance listed in s. NR 154.04(2)(b)5. or 154.19;

(g) $150 if the permit application is for a source which requires an environmental assessment under ch. NR 150;

(h) 500 if the permit application is for a source which requires a stack test prior to the department's issuance of a release for permanent operation; and

(i) $250 if the permit application is for the modification of a major source whose net increase in emissions of any of the following pollutants would equal or exceed any of the following rates:

1. Carbon monoxide: 100 tons per year
2. Nitrogen oxides: 40 tons per year
3. Sulfur dioxide: 40 tons per year
4. Particulate matter: 25 tons per year
5. Volatile organic compounds: 40 tons per year
6. Lead: 0.6 tons per year
7. Asbestos: 0.007 tons per year
8. Beryllium: 0.0004 tons per year
9. Mercury: 0.1 tons per year
10. Vinyl chloride: 1 ton per year

11. Fluorides: 3 tons per year
12. Sulfuric acid mist: 7 tons per year
13. Hydrogen sulfide (H2S): 10 tons per year
14. Total reduced sulfur (including H2S): 10 tons per year
15. Reduced sulfur compounds (including H2S): 10 tons per year

(3) PAYMENT. The department shall mail a billing statement for the required application fee to the person applying for the permit at the time the permit is issued. The application fee shall be paid within 30 days of the date of the billing statement. The department may not issue the release for permanent operation of the source until the department receives full payment of the application fee.

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Permit Fees
*Subheading:* Implementation and Enforcement Fee
*Item Subpart:*
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**Regulatory Text**

NR 410.05 IMPLEMENTATION AND ENFORCEMENT FEE.

(1) FEE REQUIRED. Any person who owns or operates an air contaminant source for which an air pollution control permit has been issued shall pay an annual fee for the implementation and enforcement of the permit conditions according to the amount established in sub. (2).

(2) AMOUNT OF FEE. The amount of the annual implementation and enforcement fee shall be:

(a) $500 per year for a major source; or
(b) $200 per year for a minor source.

(3) PAYMENT. Annually the department shall mail billing statements to persons owning or operating air contaminant sources for which the payment of an implementation and enforcement fee is required. Persons required to pay an enforcement and implementation fee shall pay the fee within 30 days of the date of the billing statement.

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**Regulatory Text**

(154) "Process upset gas" means any gas generated by a petroleum refinery process unit as a result of start-up, shut-down, upset or malfunction.

(155) "Process weight" means the total weight of all materials introduced into any direct source operation, except liquid fuels, gaseous fuels and air.

(156) "Production equipment exhaust system" means a device for collecting and directing out of the work area fugitive emissions from reactor openings, centrifuge openings, and other vessel openings at a pharmaceutical manufacturing plant.

(157) "Proportional sampling" means sampling at a rate that produces a constant ratio of flow in the sampling nozzle to stack gas flow rate.

(158) "Psia" means pounds per square inch absolute.

(159) "Publication rotogravure printing" means rotogravure printing upon paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements, and other types of printed materials.

(159m) "Public trafficable area" means any trafficable area which is owned, operated, maintained or controlled by a municipality, interstate agency, state agency or federal agency.

(160) "Quench area" means a chamber where the hot metal exiting the oven is cooled by either a spray of water or a blast of air followed by water cooling.

(161) "Reactor" means a vat or vessel, which may be jacketed to permit temperature control, designed to contain chemical reactions.

(162) " 'Reasonably available control technology' or 'RACT'" means that which provides the lowest emission rate that a particular source is capable of achieving by the application of control technology that is reasonably available considering technological and economic feasibility. Such technology may previously have been applied to a similar, but not necessarily identical, source categories.

(163) "Refinery process unit" means any segment of a petroleum refinery in which a specific processing operation is conducted.

(164) "Reid vapor pressure" means the absolute vapor pressure of volatile crude petroleum and volatile nonviscous petroleum liquids except liquefied petroleum gases as determined by ASTM-D-232-72 (reapproved 1977).

(165) "Ringlemann Chart" means the chart published by the U.S. bureau of mines in which are illustrated graduated shades of grey to black for use in estimating the shade of density of smoke. (One unit on the Ringlemann Chart equals 20% opacity).

(165m) "Roadway" has the meaning given it in s.340.01 (54), Stats.

(166) "Roll coating" means the application of a coating material to a substrate by means of hard rubber or steel rolls.

(167) "Roll printing" means the application of words, designs or pictures to a substrate, usually by means of a series of hard rubber or steel rolls each with only partial coverage.

(168) "Rotogravure coating" means the application of a coating material to a substrate by means of a roll coating technique in which the pattern to be applied is etched on the coating roll. The coating material is transferred to the substrate from the recessed areas on the coating roll.

(169) "Rotogravure printing" means the application of words, designs or pictures to a substrate by means of a roll printing technique which involves an intaglio or recessed image areas in the form of cells.

(170) "Secretary" means the secretary of the department of natural resources, state of Wisconsin.

(171) "Semistationary source" means any facility, operation or equipment that has the capability of emitting any air contaminant while moving, but generally does not emit while moving (e.g., diesel cranes, air compressors, and electric generators such as those used at construction sites, etc).

(172) "Separation operation" means a process that separates a mixture of compounds and solvents into 2 or more components. Specific mechanisms include extraction, centrifugation, filtration, and crystallization.

(173) "Shutdown" means the cessation of operation of a direct or portable source or of emission control equipment.

(174) "Slit content" means that portion by weight of a particulate material which will pass through a no. 200 (75 micron) wire sieve as determined by the dry method in ASTM C136-76 or other method approved by the department.

(175) "Single coat" means a single film of coating applied directly to a metal substrate, omitting the primer application.

(176) "Smoke" means all products of combustion of sufficient density to be observable, including but not limited to carbon, dust, fly ash, and other particles, but not including uncombined water.

(177) "Solvent" means organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents.

(178) "Solvent metal cleaning" means the process of cleaning soils from metal surfaces by cold cleaning or open top vapor degreasing or conveyorized degreasing.

(179) "Splash filling" means the filling of a tank truck or stationary storage tank through a pipe or hose whose discharge opening is more than 15.2 centimeters (6 inches) above the bottom of the tank being filled.

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**Regulatory Text**
NR 154.01 Definitions.

(1) "Accumulator" means the reservoir of a condensing unit receiving the condensate from the condenser. This includes hot wells.

(2) "Adsorption system" means a device containing adsorbent material (e.g., activated carbon, alumina, silica gel); an inlet and outlet for exhaust gases; and a system to regenerate the saturated adsorbent.

(3) "Affected facility" means any type or class of air contaminant source which is required to submit a notice of intent and plans and specifications to the department prior to construction.

(4) "Air contaminant" means dust, fumes, mist, liquid, smoke, other particulate matter, vapor, gas, odorous substances, or any combination thereof but not including uncombined water vapor.

(5) "Air contaminant source" means any facility, building, structure, equipment, vehicle, or action, or combination thereof which may directly or indirectly result in the emission of any air contaminant.

(6) "Aircraft opertion" means a landing or takeoff.

(7) "Air curtain destructor" means an incineration device which utilizes a pit for burning combustible matter, into which air is blown at high velocity through a manifold and nozzle system along one side of the pit to create a turbulent, vortical flow of air and combustible gases in the pit to bring about complete combustion.

(8) "Air dried coating" means coatings which are dried by the use of air or forced warm air. Forced warm air includes processes whereby the coated object is heated above ambient temperature up to a maximum of 90 degrees C (194 degrees F) to decrease drying time.

(9) "Air pollution" means the presence in the atmosphere of one or more air contaminants in such quantities and of such duration as is or tends to be injurious to human health or welfare, animal or plant life, or property or would unreasonably interfere with the enjoyment of life or property.

(10) "Air pollution episode levels" means levels of air quality which are so degraded as to pose imminent danger to public health.

(a) "Alert": The alert level is that concentration of one or more air contaminants at which the first stage control actions begin.

(b) "Warning": The warning level indicates air quality is continuing to degrade and that additional control actions are necessary.

(c) "Emergency": the emergency level indicates that the air quality is continuing to degrade to a level which should never be reached and that the most stringent control actions are necessary.

**State:** **Wisconsin**
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**Regulatory Text**

(11) "Air quality maintenance area" means an area designated pursuant to federal or Wisconsin laws as having the potential for exceeding any of the ambient air quality standards.

(12) "Air region" means an area such as an QCR designated pursuant to federal or Wisconsin laws in which a program to maintain or achieve air standards is implemented on a regional basis.

(13) "Ambient air" means the portion of the atmosphere external to buildings and to which the general public has access.

(14) "API" means American Petroleum Institute, 2101 L Street, N.W., Washington, D.C. 20001.

(15) "Application area" means the area where a coating is applied by spraying, dipping or flowcoating techniques.

(16) "Approved" means approved by the department of natural resources.

(17) "AQCR" means air quality control region. Air quality control regions all or part of which lie in Wisconsin are delineated in s. NR 155.02(2), Wis. Adm. Code.

(18) "Areawide air quality analysis" means a macroscale analysis utilizing a modeling technique approved by the department.

(19) "Asbestos" means any of the 6 naturally occurring hydrated mineral silicates: actinolite, amosite, anthophyllite, chrysotile, crocidolite, and tremolite.

(a) "Asbestos material" means asbestos or any material containing asbestos.

(b) "Asbestos mill" means any facility engaged in the conversion or any intermediate step in the conversion of asbestos ore into commercial asbestos. Outside storage of asbestos materials is not considered a part of such a facility.

(c) "Asbestos tailings" means any solid waste products of asbestos minings or milling operations which contain asbestos.

(20) "ASME" means American Society of Mechanical Engineers, 345 E. 47th Street, New York, New York 10017.

**State:** **Wisconsin**
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**Regulatory Text**

(21) "Asphalt" means a dark-brown to black cementitious material (solid, semisolid, or liquid in consistency) in which the predominating constituents are bitumens which occur in nature as such or which are obtained as residue in refining petroleum.

(22) "Associated parking area" means a parking facility or operated in conjunction with an indirect source.

(23) "ASTM" means American Society for Testing and Materials, 1916 Race St., Philadelphia, PA 19103.

(24) "Automobile" means all passenger cars or passenger car derivatives capable of seating 12 or fewer passengers.

(25) " 'Average daily traffic' or 'ADT' " means the total traffic volume during a given time period in whole days greater than one day and less than one year divided by the number of days in that time period.

(26) "Average monthly storage temperature" means an arithmetic average calculated for each calendar month, or portion thereof if storage is for less than a month, from bulk petroleum liquid storage temperatures determined at least once every 7 days.

(27) "Baseline transfer efficiency" means the typical transfer efficiency, as defined by the department, for a specific operation in an industry.

(28) "Bead dipping" means the dipping of an assembled tire bead into a solvent based cement.

(29) "Blade coating" means the application of a coating material to a substrate by means of drawing the substrate beneath a straight edged blade that spreads the coating evenly over the full width of the substrate.

(30) "Boiler" means any device with an enclosed combustion chamber in which fuel is burned to heat a liquid for the primary purpose of producing heat or power by indirect heat transfer.

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**Regulatory Text**

(31) "Bottom filling" means the filling of a tank truck or stationary storage tank through an opening that is flush with or near the tank bottom.

(32) "Breakdown" means a sudden failure of emission control or emission monitoring equipment to function as a result of wear, failure to repair, breakage, unavoidable damage, or other unintentional causes.

(33) "BTU" means British thermal unit.

(34) "Bulk gasoline plant" means a gasoline storage and distribution facility which receives gasoline from bulk terminals, stores it in stationary storage tanks, and subsequently distributes it to gasoline dispensing facilities.

(35) "Bulk gasoline terminal" means a gasoline storage facility which receives gasoline from refineries primarily by pipeline, ship, or barge, and delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by tank truck.

(36) "Capture efficiency" means the weight per unit time of an air contaminant entering a capture system and delivered to a control device divided by the weight per unit time of the air contaminant generated by the source, expressed as a percentage.

(37) "Capture system" means the equipment (including hoods, ducts, fans, etc.) used to contain, capture, or transport an air contaminant to a control device.

(38) "Carbon bed breakthrough" means a concentration of VOC in the exhaust from a carbon adsorption device that exceeds 10% by weight of the inlet VOC concentration.

(39) "Class II hardboard paneling finish" means finishes which meet the specifications of Voluntary Product Standard PS-59-73 as approved by the American National Standards Institute.

Note: See National Bureau of Standards, Voluntary Product Standard PS-59-73, "Prefinished Hardwood Paneling". Copies of this document are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin, and may be obtained for personal use from National Bureau of Standards, Washington, D.C. 20234.

(40) "Clear coat" means a coating which lacks color and opacity or is transparent and uses the undercoat as a reflectant base or undertone color.

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**Regulatory Text**

(41) "Coating applicator" means a device or devices used at a single location in a coating line to apply a surface coating of a particular material.

(42) "Coating line" means one or more apparatus or operations, which may include a coating applicator, flash-off area, and oven, wherein a surface coating is applied, dried, or cured.

(43) "Coil coating" means the coating of any flat metal sheet or strip that comes in rolls or coils.

(44) "Cold cleaning" means the batch process of cleaning and removing soils from metal surfaces by spraying, brushing, flushing or immersion while maintaining the solvent below its boiling point. Wipe cleaning is not included in this definition.

(45) "Commence construction" means to engage in a program of on-site construction, including site clearance, grading, dredging or landfilling specifically designed for a stationary source in preparation for the fabrication, erection or installation of the building components of the stationary source.

(46) "Commence modifiction" means to engage in a program of on-site modifiction which may include site clearance, grading, dredging or landfilling in preparation for a specific modification of a stationary source.

(47) "Commercial asbestos" means any variety of asbestos which is produced by extracting asbestos from asbestos ore.

(48) "Component" means, for purposes of petroleum refineries, any piece of equipment at a refinery which has the potential to leak VOCs. These pieces of equipment include, but are not limited to, pumping seals, compressor seals, seal oil degassing vents, pipeline valves, flanges and other connections, pressure relief devices, process drains, and open ended pipes. Excluded from these pieces of equipment are valves which have no external controls, such as in-line check valves.

(49) "Condensate" means hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature or pressure and remains liquid at standard conditions.

(50) "Condenser" means any heat transfer device used to liquify vapors by removing their latent heats of vaporization. Such devices include, but are not limited to, shell and tube, coil, surface, or contact condensers.

**State:** **Wisconsin**
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**Regulatory Text**

(51) "Continuous vapor control system" means a vapor control system that destroys or removes vapors, such as those displaced from tanks during filling, on a demand basis without intermediate accumulation.

(52) "Control device" means equipment used to destroy or remove air contaminant in a gas stream prior to emission.

(53) "Control system" means any number of control devices, including condensers, which are designed and operated to reduce the quantity of air contaminants emitted to the atmosphere.

(54) "Conveyorized degreasing" means the continuous process of cleaning and removing soils from metal surfaces by operating with either cold or vaporized solvents.

(55) "Crude petroleum" means a naturally occurring mixture which consists of hydrocarbons; or sulfur, nitrogen and oxygen derivatives of hydrocarbons, and which is liquid at standard conditions.

(56) "Custody transfer" means the transfer of produced crude petroleum or condensate, after processing or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms or transportation.

(57) "Cutback asphalt" means asphalt cement which has been liquefied by blending with petroleum solvents (diluents) other than residual oils. Upon exposure to atmospheric conditions the diluents evaporate, leaving the asphalt cement to perform its function. Asphalt which contains less than 5% by weight petroleum solvents (disregarding any residual oils added) is not included in this definition.

(58) "Day" means a 24-hour period beginning at midnight.

(59) "Delivery vessel" means a tank truck or trailer or a railroad tank car equipped with a storage tank used for the transport of gasoline from sources of supply to stationary storage tanks of bulk gasoline plants or gasoline dispensing facilities.

(60) "Department" means the department of natural resources, state of Wisconsin.

**State:** **Wisconsin**
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**Regulatory Text**

(61) "Direct source" means any stationary source which may directly result in the emission of any air contaminant at a fixed location (e.g., building demolition, foundry, grain elevator, gravel or stone quarry, paper mill, power plant, etc.).

(62) "Dose" means the total exposure to a pollutant over a specified time period.

$$\text{Dose} = \int_{T_1}^{T_2} C\,dT$$

where $T_1$ is the starting time, $T_2$ the end of the time period and C is the pollutant concentration which varies with time, C = f(T).

(63) "Dry Cleaning Facility"

(64) "Emergency or reserve equipment" means that equipment used when normal equipment fails, or used only to meet high peak loads.

(65) "Emission" means a release, whether directly or indirectly, of any air contaminant to the ambient air.

(66) "Emission point" means any individual opening at a fixed location through which air contaminants are emitted.

(67) "Emulsified asphalt" means an emulsion of asphalt cement and water which contains a small amount of an emulsifying agent; a heterogeneous system containing 2 normally immiscible phases (asphalt and water) in which the water forms the continuous phase of thee emulsion, and minute globules of asphalt form the discontinuous phase.

(68) "End sealing compound" means a synthetic rubber compound which is coated onto can ends and which functions as a gasket when the end is assembled on the can.

(69) "Equivalent air-dried kraft pulp" means pulp production which produces a loading of black liquor solids to the recovery furnace equivalent to that loading produced with kraft pulp.

(70) "Equivalent opacity" means an opacity of 20% per Ringlemann number.

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**Regulatory Text**

(71) "Exterior base coating" means a coating applied to the exterior of a can to provide exterior protection to the metal and to provide background for the lithographic or printing operation.

(72) "Extreme performance coatings" means coatings designed for harsh exposure or exposure to one or more of the following: the weather all of the time, temperatures consistently above 95 degrees C, detergents, abrasive and scouring agents, solvents, corrosive atmospheres, or similar environmental conditions.

(73) "Fabric coating" means the coating or printing of a textile substrate with a blade, roll, rotogravure or dip coater, or other coating applicator, to impart properties that are not initially present, such as strength, stability, water or acid repellancy, or appearance.

(74) "Facility' means an establishment--residential, commercial, institutional or industrial--which emits or causes emissions of air contaminants.

(75) "Firebox" means the chamber or compartment of a boiler or furnace in which materials are burned but does not mean the combustion chamber of an incinerator.

(76) "Flashoff area" means the space between the application area and the oven.

(77) "Flexographic printing" means the application of words, designs or pictures to a substrate by means of a roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric materials.

(78) "Floating roof" means a storage tank cover consisting of a double deck or pontoon single deck, which rests upon and is supported by the petroleum liquid being contained, and is equipped with a closure seal or seals to seal the space between the roof edge and tank wall. The floating roof may be either a covered external floating roof in an open storage tank or an internal floating cover beneath a fixed roof.

(79) "Forebays" mean the primary sections of a wastewater separator.

(80) "Freeboard height" means, for a cold cleaner, the distance from the liquid solvent level in the degreaser tank to the lip of the tank. For a vapor degreaser it means the distance from the top of the vapor zone to the lip of the degreaser tank.

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**Regulatory Text**

(81) "Freeboard ratio" means the freeboard height divided by the internal width of the degreaser tank.

(82) "Fuel" means any solid, liquid or gaseous materials used to produce useful heat by burning.

(83) "Fuel gas" means any gas which is generated by a petroleum refinery process unit or by a petroleum liquid transfer operation and which is combusted, or any gaseous mixture of such gas and natural gas which is combusted.

(84) "Fugitive dust" means solid airborne particles emitted from any source other than a flue or stack.

(85) "Fugitive emission" means an emission from any emission point within a facility other than a flue or stack.

(86) "Furniture metal coating" means the surface coating of any furniture made of metal or any metal part which will be assembled with other metal, wood, fabric, plastic or glass parts to form a furniture piece.

(87) "Gasoline" means any petroleum distillate having a Reid vapor pressure of 27.6 kPa (4psia) or greater.

(88) "Gasoline dispensing facility" means any site where gasoline is dispensed to motor vehicle gasoline tanks from stationary storage tanks.

(89) "Gas service" means petroleum refinery equipment which processes, transfers or contains a VOC or mixture of VOCs in the gaseous phase.

(90) "Green tires" means assembled tires before molding and curing have occurred.

(91) "Green tire spraying" means the spraying of green tires, both inside and outside, with release compounds which help remove air from the tire during molding and prevent the tire from sticking to the mold after curing.

(92) "Hardboard" means a panel manufactured primarily from interfelted ligno-cellulosic fibers which are consolidated under heat and pressure in a hot press.

(93) "Hardwood plywood" means a plywood whose surface layer is a veneer of hardwood.

(94) "Heat sensitive material" means materials which cannot consistently be exposed to temperatures greater than 95 degrees C (203 degrees F).

(94m) "Highway" has the meaning given it in s.340.01 (22), Stats.

(95) "Highway project" means all or a portion of a proposed new or modified section of highway. Where an environmental impact document is to be prepared, the highway project may be taken to cover the same length of highway.

(96) "Hydrocarbon" means any organic compound containing carbon and hydrogen.

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Control Definitions
*Subheading:* Definitions
*Item Subpart:*
*Federal Effective Date:* 07/21/82
*State SIP Citation#:* 154.01 (097-117)
*State Effective Date:*

**Regulatory Text**

(97) "Hydrophobic substrate" means any substrate that is resistant to or avoids wetting. This may include but is not limited to polyethylene, polypropylene, cellophane, metalized polyester, nylon, and mylar.

(98) "Implementation plan" means a plan adopted to implement, maintain, and enforce air standards within an air region or portion thereof.

(99) "Incinerator" means a combustion apparatus designed for high temperature operation in which solid, semisolid, liquid, or gaseous combustible wastes are ignited and burned to produce solid and gaseous residues containing little or no combustible material.

(100) "Indirect source" means any stationary source which conveys motor vehicles or which attracts or may attract mobile source activity and thus indirectly causes the emission of any air contaminant. Such indirect sources include, but are not limited to highways and roads; parking facilities; retail, commercial and industrial facilities; recreation, amusement, sports and entertainment facilities; airports; office and government buildings; apartment and condominium buildings; and education facilities.

(101) "Interior sheet base coating" means a coating applied by roller coater or spray to the interior side of sheets from which cans are formed to provide a protective lining between the can metal and product.

(102) "Interior body spray" means a coating sprayed on the interior of the can body to provide a protective film between the product and the can.

(103) "Intermittent vapor control system" means a vapor control system that employs an intermediate vapor holder to accumulate vapors displaced from tanks during filling. The control device destroys or removes the accumulated vapors only during automatically controlled cycles.

(104) "Isokinetic sampling" means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the same point.

(105) "KPa" menas kilo Pascals (1.0 kPa = 0.15 psia).

(106) "Kraft process" means any pulping process which uses an alkaline sulfide solution containing sodium hydroxide and sodium sulfide for a cooking liquor.

(107) "Large appliances" means doors, cases, lids, panels and interior support parts of residential and commercial washers. dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners and other similar products. Not included are products of such weight that they are normally lifted only with powered lifting equipment or products which are intended to be permanently fastened in place.

(108) "Leaking component" means any component at a petroleum refinery which has a VOC concentration exceeding 10,000 ppm when tested in the manner approved by the department.

(109) "Light-duty trucks" means any motor vehicles rated at 3864 kilograms (8500 pounds) gross weight or less which are designed primarily for the purpose of transporting goods and materials, or derivatives of such vehicles.

(110) "Liquid-mounted seal" means a primary floating roof seal mounted in continuous contact with the liquid in a liquid organic compound storage tank between teh tank wall and the floating roof around the internal circumference of the tank.

(111) "Liquid service" means petroleum refinery equipment which processes, transfers or contains a VOC or mixture of VOCs in the liquid phase.

(112) "Loading rack" means an aggregation or combination of gasoline loading equipment arranged so that all loading outlets in the combination can be connected to a tank truck or trailer parked in a specific loading space.

(113) " 'Lower explosive limit' or 'LEL' " means the lower limit of flammability of a gas or vapor at ordinary ambient temperatures expressed as percent propane in air by volume.

(114) "Low solvent coating or ink" menas a coating or ink which contains less organic solvent than the conventional coatings used by the particular industry. Low solvent coatings or inks include water-borne, higher solids, electrodeposition and powder coatings or inks.

(115) "Magnet wire coating" means the process of applying a coating of electrically insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.

(116) "Manufacturing plant" means a facility where parts are manufactured, finished or assembled for eventual inclusion into a finished product ready for sale to retailers. With respect to the manufacture of motor vehicles, customizers, body shops and other repainters are not included in this definition.

(117) "Mobile source" means any motor vehicle or equipment other than a semistationary source which is capable of emitting any air contaminant while moving (e.g., automobile, bulldozer, bus, locomotive, motorboat, motorcycle, snowmobile, steamship, truck, etc.).

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Control Definitions
*Subheading:* Definitions
*Item Subpart:*
*Federal Effective Date:* 12/28/83
*State SIP Citation#:* 154.01 (118-131)
*State Effective Date:*

**Regulatory Text**

(118) "Modification" means any change in physical size or method of operation of a stationary or portable source which increases the amount of any air contaminant emitted except that:

(a) Routine maintenance and repair shall not be considered physical changes.

(b) The following shall not be considered changes in method of operation unless the change will cause or exacerbate a violation of any ambient air quality standard.

1. An increase in production rate if such increase does not exceed the operating design capacity of the stationary source.

2. An increase in the hours of operation.

3. Use of an alternate fuel or raw material.

4. Resumption of operation of existing equipment after a period of closure.

(118m) "Motor vehicle" or "vehicle" means every self-propelled device, except railroad trains, by which any person or property is or may be transported or drawn upon a highway.

(118n) "Municipality" has the meaning given it in s. 144.01 (6), Stats.

(119) "Natural finish hardwood plywood panels" means panels whose original grain pattern is enhanced by essentially transparent finishes which may be supplemented by fillers and toners.

(120) "New direct or portable source" means a direct or portable source, the construction or modification of which is commenced after April 1, 1972, or the effective date of promulgation of an emission limit which applies.

(121) "New indirect source" means an indirect source, the construction or modification of which is commenced after July 1, 1975.

(122) "Nitrogen oxides" means all oxides of nitrogen except nitrous oxide.

(123) "Noncondensibles" means gases and vapors from processes that are not condensed with the equipment used in those processes.

(124) "Opacity" means the state of a substance which renders it partially or wholly impervious to rays of light. (20% opacity equals one unit on the Ringlemann Chart.)

(125) "Open burning" means oxidation from which the products of combustion are emitted directly into the ambient air without passing through a stack or chimney.

(126) "Open top vapor degreasing" means the batch process of cleaning and removing soils from metal surfaces by condensing hot solvent vapor on the colder metal parts.

(127) "Operator" means any person who leases, controls, operates or supervises a facility, an air contaminant source, or air pollution control equipment.

(128) "Organic compound" means a compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates and ammonium carbonate.

(129) "Oven" means, for the purpose of surface coating, a chamber within which heat is used to bake, cure, polymerize, or dry a surface coating.

(130) "Overall emission reduction efficiency" means the weight per unit time of an air contaminant removed by a control device divided by the weight per unit time of the air contaminant generated by the source, expressed as a percentage.

(131) "Overvarnish" means a coating applied directly over ink to reduce the coefficient of friction, to provide gloss and to protect the finish against abrasion and corrosion.

**Federal Citation Number:**
**154.01 (132-153)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Control Definitions
*Subheading:* Definitions
*Item Subpart:*
*Federal Effective Date:* 07/21/82

*State SIP Citation#:* 154.01 (132-153)
*State Effective Date:*

**Regulatory Text**

(132) "Ozone season" means the period from May 1 through September 30 of any year.

(133) "Packaging rotogravure printing" means rotogravure printing upon paper, paper board, metal foil, plastic film, or other substrates, which in subsequent operations are formed into packaging products or labels for articles to be sold.

(134) "Paper coating" means application of the uniform coatings put on paper and pressure sensitive tape regardless of substrate. Related web coating processes on plastic fibers and on metal foil are included in this definition but processes such as printing where the coating is not uniform across the web are not included.

(135) "Parking capacity" means the maximum number of vehicles which a parking facility is designed to hold based on an allotment of not more than 350 square feet of stall and aisle area per vehicle.

(136) "Particulate asbestos material" means any finely divided particles of asbestos material.

(137) "Particulate or particulate matter" means:

(a) For an existing direct or portable source, any material which exists as a solid at standard conditions.

(b) For a new direct or portable source, any material which exists as a solid or liquid at standard conditions except uncombined water.

(138) " 'Parts per million' or 'ppm' " means parts of a contaminant per million parts of gas by volume.

(139) "Passenger type tire" means agricultural, airplane, industrial, mobile home, light and medium duty truck, and passenger vehicle tires with a bead diameter up to 50.8 cm (20 inches) and cross section dimension up to 32.5 cm (12.8 inches).

(140) "Peak hour volume" means the highest one-hour traffic volume in a calendar year.

(141) "Penetrating prime coat" means an application of low-viscosity liquid asphalt to an absorbent surface to prepare it for an asphalt surface.

(142) "Performance test" means measurements of emissions or other procedures used for the purpose of determining compliance with an standard of performance.

(143) "Person" means any individual, corporation, company, cooperative, owner, tenant, lessee, syndicate, partnership, co-partnership, firm, association, trust, estate, public or private institution, joint stock company, political subdivision of the state of Wisconsin, state agency, or any legal successor, representative, agent or agency of the foregoing.

(144) "Petroleum" means the crude oil removed from the earth and the oils derived from tar sands, shale, coal and coke.

(145) "Petroleum liquid" means crude petroleum, petroleum, condensate and any finished or intermediate products manufactured or extracted in a petroleum refinery or in a facility which produces oils from tar sands, shale, coal or coke.

(146) "Petroleum refinery" means any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants or other products through distillation of petroleum or through redistillation, cracking, extraction or reforming of unfinished petroleum derivatives.

(147) "Photochemically reactive organic substances" means any of the following:

(a) Group A: Hydrocarbons, alcohols, aldehydes, esters, ethers or ketones, which have olefinic or cyclo-olefinic type unsaturation.

(b) Group B: Aromatic compounds with 8 or more carbon atoms to the molecule, except ethylbenzene.

(c) Group C: Ethylbenzene, toluene, or ketones having branched hydrocarbon structures.

(d) Group D: A solvent or mixture of organic compounds in which any of the following conditions are met:

1. More than 20% of the total volume is composed of any combination of the compounds listed in groups A, B or C above.

2. More than 5% of the total volume is composed of any combination of the compounds listed in group A above.

3. More than 8% of the total volume is composed of any combination of the compounds listed in group B above.

(148) "Pneumatic rubber tire manufacture" means the production of pneumatic rubber passenger type tires on a mass production basis.

(149) "Portable source" means any facility, installation, operation or equipment which may directly result in the emission of any air contaminant only while at a fixed location but is capable of being transported to a different location (e.g., portable asphalt plant, portable package boiler, portable air curtain destructor, etc.). A modified portable source or a source which has never received a plan approval shall be considered to be a direct stationary source which is subject to the requirements of ss. NR 154.04 and NR 154.05.

(150) "Prime coat" means the first film of coating applied to a product in a multiple-coat surface coating operation.

(151) "Printed interior panels" means panels whose grain or natural surface is obscured by fillers and basecoats upon which is simulated grain or decorative pattern is printed.

(152) "Process gas" means any gas generated by a petroleum refinery process unit except fuel gas and process upset gas as defined in this section.

(153) "Process line" means one or more actions or unit operations which must function simultaneously or in sequence in order to manufacture or modify a product (e.g. a spray booth, conveyor and drying oven are considered a process line).

**Federal Citation Number:**
**154.01 (180-200)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Control Definitions
*Subheading:* Definitions
*Item Subpart:*
*Federal Effective Date:* 07/21/82

*State SIP Citation#:* 154.01 (180-200)
*State Effective Date:*

**Regulatory Text**

(180) "Stack" means any device or opening designed or used to emit air contaminants to the ambient air.

(181) "Standard conditions" means a temperature of 20 degrees C (68 degrees F) and a pressure of 760 millimeters of mercury (29.92 inches of mercury).

(182) " 'Standard metropolitan statistical area' or 'SMSA' " means such area as designated by teh U.S. bureau of budget in the following publication: Standard Metropolitan Statistical Areas, issued in 1967, with subsequent amendments. The following Wisconsin counties are included in SMSA's:

(a) Appleton-Oshkosh, Wisconsin SMSA:

1. Calumet county

2. Outagamie county

3. Winnebago county

(b) Duluth-Superior, Minnesota-Wisconsin SMSA: Douglas county

(c) Eau Claire, Wisconsin SMSA:

1. Eau Claire county

2. Chippewa county

(d) Green Bay, Wisconsin SMSA: Brown county

(e) Kenosha, Wisconsin SMSA: Kenosha county

(f) La Crosse, Wisconsin SMSA: LaCrosse county

(g) Madison, Wisconsin SMSA: Dane county

(h) Milwaukee, Wisconsin SMSA:

1. Milwaukee county

2. Ozaukee county

3. Washington county

4. Waukesha county

(i) Minneapolis-St. Paul, Minnesota-Wisconsin SMSA: St. Croix county

(j) Racine, Wisconsin SMSA: Racine county

Note: See Standard Metropolitan Statistical Areas, Revised Edition, 1975, executive office of the President, office of management and budget. Copies of this publication are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin, or may be obtained for personal use from the superintendent of documents, U.S. government printing office, Washington, D.C., 20402.

(183) "Startup" means the setting in operation of an affected facility or its emission control equiment for any purpose which produces emissions.

(184) "Stationary source" means any facility, building, structure, installation, or action, or combination thereof which may directly or indirectly result in the emission of any air contaminant at a fixed location.

(185) "Submerged fill pipe" means any fill pipe with a discharge opening which is entirely submerged when the liquid level is 15.2

centimeters (6 inches) above the tank bottom.

(186) "Surface coating" means the application of a coating to a product in a coating line.

(187) "Synthesized pharmaceutical manufacturing" means manufacture of pharmaceutical products by chemical synthesis.

(188) "Technological infeasibility" means incapable of being accomplished or carried out as a matter of practicality; i.e., technically impracticable rather than technically impossible.

(189) "Thin particleboard" menas a manufactured board 0.64 centimeters (1/4 inch) or less in thickness made of individual wood particles which have been coated with a binder and formed into flat sheets by pressure.

(190) "Three-piece can side-seam spray" means a coating sprayed on the exterior and interior of a welded, cemented or soldered seam to protect the exposed metal.

(191) "Tileboard" means paneling that has a colored waterproof surface coating.

(192) "Topcoat" means the final film of coating applied in a multiple coat operation.

(193) " 'Total reduced sulfur' or 'TRS' " means any sulfur containing compound in which the oxidation state of sulfur is less than zero. Common examples of such compounds are hydrogen sulfide, mercaptans, and dimethyl disulfide.

(194) "Traffic volume" means the number of vehicles that pass a particular point on the roadway during a specific time period. Volume can be expressed in terms of daily traffic or annual traffic as well as on an hourly basis.

(195) "Transfer efficiency" means the portion of coating solids which adheres to the surface being coated during the application process, expressed as a percentage of the total volume of coating solids delivered to the applicator.

(196) "Tread end cementing" means the application of a solvent based cement to tire tread ends.

(197) "True vapor pressure" means the equilibrium partial pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, Evaporation Loss from Floating Roof Tanks, 1962.

(198) "Turnaround" means the procedure of shutting a refinery unit down after a run to do necessary maintenance and repair work and putting the unit back on stream.

(199) "Two-piece can exterior end coating" means a coating applied by roller coating or spraying to the exterior end of a can to provide protection to the metal.

(200) "Uncombined water" means water not chemically or physically bound to other materials.

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Control Definitions
*Subheading:* Definitions
*Item Subpart:*
*Federal Effective Date:* 07/21/82
*State SIP Citation#:* 154.01 (201-211)
*State Effective Date:*

**Regulatory Text**

(201) "Undertread cementing" means the application of a solvent based cement to the underside of a tire tread.

(202) "Vacuum producing system" means any reciprocating, rotary, or centrifugal blower or compressor, or any jet ejector or device that takes suction from a pressure below atmospheric and discharges against atmospheric pressure.

(203) "Vapor balance system" means a combination of pipes or hoses which create a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.

(204) "Vapor collection system" means, for the purpose of liquid organic compound transfer operations, a vapor transport system which uses direct displacement by the liquid loaded to force vapors from the tank into a vapor system or vapor holding tank.

(205) "Vapor-mounted seal" means any primary floating roof seal mounted so that there is an annular vapor space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the liquid surface, and the floating roof.

(206) "Vapor recovery or control system" means a system that gathers organic compound vapors released during the operation of any transfer, storage, or process equipment and processes the vapors so as to prevent their emission into the ambient air.

(207) "Vinyl coating" means applying a decorative or protective topcoat or printing on vinyl coated fabric or vinyl sheets.

(208) " 'Volatile organic compound' or 'VOC' " means any compound of carbon that has a vapor pressure greater than 0.1 millimeter of mercury (0.0019 psia) at standard conditions, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.

(209) "Wastewater (oil-water) separator" means any device or piece of equipment which utilizes the difference in density between oil and water to remove oil and associated chemicals from water. This includes any device, such as a flocculation tank, clarifier, etc., which removes petroleum derived compounds from wastewater.

(210) "Water based sprays" means release compounds, sprayed on the inside and outside of green tires, in which solids, water, and emulsifiers have been substituted for all organic solvents.

(211) "Waxy, heavy pour crude petroleum" means a crude petroleum with a pour point of 10 degrees C (50 degrees F) or higher as determined by the ASTM standard D97-66, "Test For Pour Point of Petroleum Oils."

**Federal Citation Number:**
**154.01(126m)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Control Definitions
*Subheading:* Definitions
*Item Subpart:* Open Top Vapor Degreasing
*Federal Effective Date:* 06/10/85
*State SIP Citation#:* 154.01(126m)
*State Effective Date:*

**Regulatory Text**
NR 154.01 (126m) is created to read:

NR 154.01 (126m) "silt content" means that portion by weight of a particulate material which will pass through a No. 200 (75 micron) wire sieve as determined by the dry method in ASTM C136-76 or other method approved by the Department.

**Federal Citation Number:**
**154.01(38m)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Control Definitions
*Subheading:* Definitions
*Item Subpart:* Cartridge Filter
*Federal Effective Date:* 06/10/85
*State SIP Citation#:* 154.01(38m)
*State Effective Date:*

**Regulatory Text**
(38m) "Cartridge filter" means a perforated canister containing filtration paper or activated carbon, or both, that is used to remove solid particles and fugitive dyes from soil-laden solvent.

**Federal Citation Number:**
**154.01(68m)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Control Definitions
*Subheading:* Definitions
*Item Subpart:* Energy Intensive Control Device
*Federal Effective Date:* 09/09/85
*State SIP Citation#:* 154.01(68m)
*State Effective Date:*

**Regulatory Text**
NR154.01(68m)

(68m) "Energy intensive control device" means an air pollution control device or system which consumes energy at a rate in excess of what would be required to heat the exhaust gas stream from 70 degrees F to 800 degrees F, taking into account energy recovered in the form of heat or organic compounds.

**Federal Citation Number:**
**154.01(a)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Control Definitions
*Subheading:* Definitions
*Item Subpart:* Introduction
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* 154.01(a)
*State Effective Date:*

**Regulatory Text**
NR 154.01 Definitions (intro.) In chs. NR 154 and 155, the following words have the designated meanings, unless a different meaning is expressly provided:

**Federal Citation Number:**
**154.01(b)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Control Definitions
*Subheading:* Definitions
*Item Subpart:*
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* 154.01(b)
*State Effective Date:*

**Regulatory Text**

(13m) "Ambient air increment" or "air increment" means the maximum allowable increase in concentration of an air contaminant above the base line concentration of the air contaminant.

(27m) "Basic emissions unit" means the smallest collection of equipment which in combination emits or is capable of emitting any air contaminant.

(66m) "Emissions unit" means any part of a stationary source which emits or is capable of emitting any air contaminant.

(75m) "Fixed capital cost" means the capital needed to provide all of the depreciable components.

(106m) "Laboratory" means a facility or portion of a multi-use facility which does not produce a product for regular commercial use or sale and which is used primarily for scientific or technical experimentation or observation of matter for the purpose of research, development, quality assurance, analysis or teaching.

**Federal Citation Number:**
**154.01(c)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Control Definitions
*Subheading:* Definitions
*Item Subpart:*
*Federal Effective Date:* 07/25/86

*State SIP Citation#:* 154.01(c)
*State Effective Date:*

**Regulatory Text**

(118s) "Municipal garbage and refuse" means garbage and refuse, as those terms are defined in ch. NR 180, which are primarily generated by residential activities but which may include minor amounts of commercial and industrial garbage and refuse that are in the total waste stream and are not hazardous. Municipal garbage and refuse does not include sludge which is generated from a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant or air pollution control facility.

(162m) "Reconstruction" means the removal of components of a stationary source and the substitution of those components with similar new components to such an extent that the fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new stationary source. The term "reconstruction" does not apply to minor sources.

(164g) "Relocation" means the removal of a stationary source from one location and the siting of the stationary source at a different location.

(164m) "Replacement" means the physical dismantling of a stationary source and the substitution of that source with a stationary source which is similar in operating capacity and function.

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Episode Levels and Episode Emission Control Action Programs
*Subheading:* Episode Levels (Applicability; Purpose)
*Item Subpart:*
*Federal Effective Date:* 02/13/87
*State SIP Citation#:* NR493.01
*State Effective Date:*

**Regulatory Text**

NR 493.01 EPISODE LEVELS.

(1) AIR EPISODE ADVISORY. The department may issue an Air Pollution Episode advisory to the general public if any air contaminant or combination of air contaminants reaches the respective level of concentration specified in Table 1 at any monitoring site.

(2) AIR EPISODE LEVELS. The department shall declare an Air Pollution Episode Level at the "Alert", "Warning" or "Emergency" stage if any air contaminant or combination of air contaminants reaches the respective level of concentration specified in Table 1 at any monitoring site and if meteorological conditions are such that the concentrations of the air contaminant can be expected to remain at or above that level for 12 or more hours, or in the case of ozone, to recur the following day at the same or a higher level, unless control actions are taken.

Table 1

EPISODE STAGE CRITERIA FOR AIR CONTAMINANTS

| AIR CONTAMINANTS | SAMPLING PERIOD | AVERAGING PERIOD | ALERT |
|---|---|---|---|
| Particulate Matter | 24-hours | Block average | 375 ug/m$^3$ |
| Sulfur Dioxide | 1-hour | Any hour | 1870 ub/m$^3$ (0.70 ppm) |
| | 24-hours | Continuous running average | 800 ug/m$^3$ (0.30 ppm) |
| Product of Particulate Matter and Sulfur Dioxide | 24-hours | Block average | 65,000 (ugm$^3$ 2) |
| Carbon Monoxide | 8-hours | Continuous running average | 17 ub/m$^3$ (15 ppm) |
| Ozone (for volatile organic compounds) | 1-hour | Any hour | 0.20 ppm (400 ug/m$^3$) |
| Nitrogen Dioxide | 1-hour | Any hour | 1130 ug/m$^3$ (0.60 ppm) |

TABLE 1 (Continued)

EPISODE STAGE CRITERIA FOR AIR CONTAMINANTS

| AIR CONTAMINANTS | WARNING | EMERGENCY |
|---|---|---|
| Particulate Matter | 625 ug/m$^3$ | 875 ug/m$^3$ |
| Sulfur Dioxide | 3730 ug/m$^3$ (1.40 ppm) | 4990 ug/m$^3$ (1.90 ppm) |

| | | |
|---|---|---|
| | 1600 ub/m (0.60 ppm) | 2100 ug/m (0.80 ppm) |
| Product of Particulate Matter and Sulfur Dioxide | 261,000 ($ug/m^3$)$^2$ | 393,000 ($ug/m^3$)$^2$ |
| Carbon Monoxide | 34 $ug/m^3$ (30 ppm) | 46 $ub/m^3$ (40 ppm) |
| Ozone (for volatile organic compounds | 0.40 ppm (800 $ug/m^3$) | 0.50 ppm (1000 $ug/m^3$) |
| Nitrogen Dioxide | 2260 $ug/m^3$ (1.20 ppm) | 3000 $ug/m^3$ (1.60 ppm) |

**Federal Citation Number:**
**NR493.03(1)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Episode Levels and Episode Emission Control Action Programs
*Subheading:* Episode Orders
*Item Subpart:* Air Pollution Alert
*Federal Effective Date:* 02/13/87
*State SIP Citation#:* NR493.03(1)
*State Effective Date:*

**Regulatory Text**
(1) AIR POLLUTION ALERT.

(a) Any air contaminant or combination of air contaminants. Any person responsible for the operation of a source of air contamination as set forth in s. NR 493.02(1) shall take all AIR POLLUTION ALERT actions as required for such source of air contamination, and shall particularly put into effect the emission control action program for an AIR POLLUTION ALERT declared under s. NR 493.01(2).

(b) Particulate matter.

1. No person may open burn any tree wastes, vegetation, refuse, or debris in any form.

2. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12:00 noon and 4:00 p.m.

3. Persons operating fuel-burning equipment which requires intermittent boiler lancing or soot blowing shall perform such operations, to the maximum extent possible, between the hours of 12:00 noon and 4:00 p.m.

(c) Nitrogen oxides.

1. No person may open burn any tree waste, vegetation, refuse, or debris in any form.

2. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12:00 noon and 4:00 p.m.

**Federal Citation Number:**
**NR493.03(2)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Episode Levels and Episode Emission Control Action Programs
*Subheading:* Episode Orders
*Item Subpart:* Air Pollution-Warning
*Federal Effective Date:* 02/13/87
*State SIP Citation#:* NR493.03(2)
*State Effective Date:*

**Regulatory Text**
(2) AIR POLLUTION WARNING.

(a) Any air contaminant or combination of air contaminants. Any person responsible for the operation of a source of air contamination as set forth in s. NR 493.02(1) shall take all AIR POLLUTION WARNING actions as required for such source of air contamination, and shall particularly put into effect the emission control action program for an AIR POLLUTION WARNING declared under s. NR 493.01(12).

(b) Particulate matter.

1. No person may open burn any persons waste, vegetation, refuse, or debris in any form.

2. No person may use incinerators for the disposal of any form of solid waste or liquid waste.

3. Persons operating fuel-burning equipment which requires intermittent boiler lancing or soot blowing shall perform such operations, to the maximum extent possible, between the hours of 12:00 noon and 4:00 p.m.

(c) Nitrogen oxides.

1. No person may open burn any tree waste, vegetation, refuse, or debris in any form.

2. No person may use incinerators for the disposal of any form of solid waste or liquid waste.

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Episode Levels and Episode Emission Control Action Programs
*Subheading:* Episode Orders
*Item Subpart:* Air Pollution - Emergency
*Federal Effective Date:* 02/13/87
*State SIP Citation#:* NR493.03(3)
*State Effective Date:*

**Regulatory Text**

(3) AIR POLLUTION EMERGENCY.

(a) Any air contaminant or combination of air contaminants.

1. Any person responsible for the operation of a source of air contamination set forth in s. NR 493.02(1) shall take all AIR POLLUTION EMERGENCY actions required for such source of air contamination, and shall particularly put into effect the emission control action program for an AIR POLLUTION EMERGENCY declared under s. NR 493.01(2).

2. All manufacturing establishments except those included in s. NR 493.02(1) shall institute such actions as will result in maximum reduction of air contaminants from their operations by ceasing, curtailing, or postponing operations which emit air contaminants to the extent possible without causing injury to persons or damage to equipment.

3. All places of employment described in this subdivision shall immediately cease operations:

a. Mining and quarrying of nonmetallic minerals.

b. All contract construction work except that which must proceed to avoid physical harm.

c. Wholesale trade establishments which are primarily engaged in selling merchandise to retailers, to industrial, commercial, institutional or professional users, or to other wholesalers, or acting as agents in buying merchandise for or selling merchandise to such persons or companies.

d. All offices of local, county, and state government and any other public body, except those offices that must continue to operate in order to enforce the requirements of this order.

e. All retail trade establishments, except pharmacies and stores primarily engaged in the sale of food.

f. Banks, credit agencies, securities and commodities brokers, dealers, exchanges and services, offices of insurance carriers, agents and brokers, and real estate offices.

g. Wholesale and retail laundries, laundry services and cleaning and dyeing establishments, photographic studios, beauty shops, barber shops, shoe repair shops.

h. Advertising offices, consumer credit reporting adjustment and collection agencies, duplicating, addressing, blueprinting, photocopying, mailing, mailing list and stenographic services, equipment rental services, commercial testing laboratories.

i. Automobile repair, automobile services, garages.

j. Establishments rendering amusement and recreation services, including motion picture theaters.

k. Elementary and secondary schools, colleges, universities, professional schools, junior colleges, vocational schools, and public and private libraries.

4. No person may open burn any tree waste, vegetation, refuse, or debris in any form.

5. No person may use incinerators for the disposal of any form of solid or liquid waste.

6. No person may use a motor vehicle except in an emergency with the approval of local or state police.

(b) (Reserved)

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Episode Levels and Episode Emission Control Action Programs
*Subheading:* Episode Orders
*Item Subpart:* Tables for Emission Reduction
*Federal Effective Date:* 02/13/87
*State SIP Citation#:* NR493.03(5)
*State Effective Date:*

**Regulatory Text**

(5) TABLES FOR EMISSION REDUCTION:

TABLE 2

EMISSION REDUCTION REQUIREMENTS FOR PARTICULATE MATTER

| Source of Air Contamination | Air Pollution Alert | | |
|---|---|---|---|
| 1. Coal or oil-fired power generating facilities | a. Substantial reduction of particulates by utilization of fuels having lowest available ash content.<br><br>b. Maximum utilization of midday (12:00 Noon to 4:00 pm.) atmospheric turbulence for boiler lancing and soot blowing.<br><br>c. Substantial reduction of particulates by diverting electric power generation to facilities outside of Alert Area. | | |
| 2. Coal or oil-fired process steam generating facilities | a. Substantial reduction of particulates by utilization of fuels having lowest available ash content.<br><br>b. Maximum utilization of midday (12:00 Noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.<br><br>c. Reduction of steam load demands consistent with continuing plant operations. | | |
| 3. Manufacturing, processing, mining industries. Other persons required by the department to prepare emission control action programs. | a. Substantial reduction of particulates from manufacturing operations by curtailing, allied operations. | OR | postponing, or deferring production and<br><br>b. Maximum reduction of particulates by deferring trade waste disposal operations which emit particles, gases, vapors or malodorous substances.<br><br>c. Reduction of heat load demands for processing consistent with continuing plant operations. |
| 4. Refuse disposal operations. | a. Maximum reductions of particulates by prevention of open burning. | | |

b. Substantial reduction of particulates by limiting burning of refuse in incinerators to the hours between 12:00 Noon and 4:00 p.m.

TABLE 2 (Continued)

EMISSION REDUCTION REQUIREMENTS FOR PARTICULATE MATTER

| Source of Air Contamination | Air Pollution Warning |
|---|---|
| 1. Coal or oil-fired power generating facilities | a. Maximum reduction of particulates by utilization of fuels having lowest available ash content |
| | b. Maximum utilization of midday (12:00 Noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. |
| | c. Maximum reduction of particulates by diverting electric power generation to facilities outside of Warning Area. |
| 2. Coal or oil-fired process steam generating facilities | a. Maximum reduction of particulates by utilization of fuels having lowest available ash content. |
| | b. Maximum utilization of midday (12:00 Noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. |
| | c. Reduction of steam load demands consistent with continuing plant operations. |
| | d. Making ready for use a plan of action to be taken if an emergency develops. |
| 3. Manufacturing, processing, mining industries. OR Other persons required by the department to prepare emission control action programs. | a. Maximum reduction of particulates from manufacturing operations by, if necessary, assuming reasonable economic hardship by postponing. |
| | b. Maximum reduction of particulates by deferring trade waste disposal operations which emit particles, gases, vapors or malodorous substances. |
| | c. Reduction of heat load demands for processing consistent with continuing plant operations. |
| 4. Refuse disposal operations. | a. Maximum reduction of particulates by eliminating open burning. |
| | b. Complete elimination of the use of |

incinerators.

TABLE 2 (Continued)

EMISSION REDUCTION REQUIREMENTS FOR PARTICULATE MATTER

| Source of Air Contamination | Air Pollution Emergency |
|---|---|
| 1. Coal or oil-fired power generating facilities | a. Maximum reduction of particulates by utilization of fuels having lowest available ash content. |
| | b. Maximum utilization of midday (12:00 Noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. |
| | c. Maximum reduction of particulates by diverting electric power generation to facilities outside of Emergency Area. |
| 2. Coal or oil-fired process steam generating facilities | a. Maximum reduction of particulates by reducing heat and steam demands to absolute necessities consistent with preventing equipment damage. |
| | b. Maximum utilization of midday (12:00 Noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. |
| | c. Taking the action called for in emergency portion of the emission control action program. |
| 3. Manufacturing, processing, OR Other persons required by the department to prepare emission control action programs. | a. Elimination of particulates from mining industries. manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment. |
| | b. Elimination of particulates from trade waste disposal processes which emit particles, gases, vapors or malodorous substances. |
| | c. Maximum reduction of heat load demands for processing. |
| 4. Refuse disposal operations. | a. Maximum reduction of particulates by eliminating open burning. |
| | b. Complete elimination of the use of incinerators. |

TABLE 3

EMISSION REDUCTION REQUIREMENTS FOR SULFUR OXIDES

| Source of Air Contamination | Air Pollution Alert |
|---|---|
| 1. Coal or oil-fired electric power generating facilities | a. Substantial reduction of sulfur dioxide by utilization of fuels having lowest available sulfur content. |
| | b. Substantial reduction of sulfur dioxide by diverting electric power generation to facilities outside of Alert Area. |

| | | |
|---|---|---|
| 2. Coal or oil-fired process steam generating facilities. | a. Substantial reduction of sulfur dioxide by utilization of fuels having lowest available sulfur content. | |
| | b. Reduction of steam load demands consistent | with continuing plant operations. |
| | c. Reduction of heat load demands for | processing consistent with continuing plant operations. |
| 3. Manufacturing and processing industries OR by the department to prepare emission control programs. | a. Substantial reduction of sulfur dioxide from manufacturing operations by curtailing, postponing, or deferring production and allied Other persons required | operations. |
| | b. Maximum reduction of sulfur dioxide by | deferring trade waste disposal operations which emit particles, gases, vapors or malodorous substances. |
| | c. Reduction of heat load demands for | processing consistent with continuing plant operations. |

TABLE 3 (Continued)

EMISSION REDUCTION REQUIREMENTS FOR SULFUR OXIDES

| Source of Air Contamination | Air Pollution Warning | |
|---|---|---|
| 1. Coal or oil-fired electric power generating facilities | a. Maximum reduction of sulfur dioxide by utilization of fuels having lowest available sulfur content. | |
| | b. Maximum reduction of sulfur dioxide by | diverting electric power generation to facilities outside of Warning Areas. |
| 2. Coal or oil-fired process steam generating facilities. | a. Maximum reduction of sulfur dioxide by utilization of fuels having the lowest available sulfur content. | |
| | b. Reduction of steam load demands consistent | with continuing plant operations. |
| 3. Manufacturing and processing industries OR Other persons required | a. Maximum reduction of sulfur dioxide from manufacturing operations by, if necessary, assuming reasonable economic hardship by post-poning production and allied operations. | |
| | b. Maximum reduction of sulfur dioxide by deferring trade waste disposal operations which | emit particles, gases, vapors or malodorous substances. |
| | c. Reduction of heat load demands for | processing consistent with continuing plant operations. |

TABLE 3 (Continued)

EMISSION REDUCTION REQUIREMENTS FOR SULFUR OXIDES

| Source of Air Contamination | Air Pollution Emergency | |
|---|---|---|
| 1. Coal or oil-fired | a. Maximum reduction of sulfur dioxide by | |

| | | |
|---|---|---|
| electric power generating facilities | utilization of fuels having lowest available sulfur content. | |
| | b. Maximum reduction of sulfur dioxide by facilities outside of Emergency Area. | diverting electric power generation to |
| 2. Coal or oil-fired process steam generating facilities. | a. Maximum reduction of sulfur dioxide by reducing heat and steam demands to absolute necessity consistent with preventing equipment damage. | |
| | b. Taking the action called for in the emergency portion of the emission control action programs. | |
| 3. Manufacturing and processing, curOR Other persons required by the department to prepare emission control action programs. | a. Elimination of sulfur dioxide from tailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment. | manufacturing operations by |
| | b. Elimination of sulfur dioxide from trade waste disposal processes which emit particles, | gases, vapors or malodorous substances. |
| | c. Maximum reduction of heat load demands for | processing. |

TABLE 4

EMISSION REDUCTION REQUIREMENTS FOR NITROGEN OXIDES

| Source of Air Contamination | Air Pollution Alert | |
|---|---|---|
| 1. Steam-electric power generating facilities. | a. Substantial reduction of nitrogen oxides by utilization of fuel which results in the | formation of less air contaminants. |
| | b. Substantial reduction of nitrogen oxides by diverting electric power generation to | facilities outside of Alert Area. |
| 2. Process steam generating facilities. | a. Substantial reduction of nitrogen oxides by utilization of fuel which results in the formation of less air contaminant. | |
| | b. Reduction of steam load demands consistent | with continuing plant operations. |
| 3. Manufacturing and processing industries by curtailing, OR Other processes required by the department to prepare emission control action programs. | a. Substantial reduction of nitrogen oxides from manufacturing operations postponing, or deferring production and allied operations. | |
| | b. Maximum reduction of nitrogen oxides by deferring trade waste disposal operations which emit particles, gases, vapors or malodorous | substances. |
| | c. Reduction of heat load demands for | processing consistent with continuing plant operations. |
| 4. Stationary Internal | Reduction of power demands for pumping combustion engines. | consistent with continuing |

operations.

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TABLE 4 (Continued)

EMISSION REDUCTION REQUIREMENTS FOR NITROGEN OXIDES

| Source of Air Contamination | Air Pollution Warning |
|---|---|
| 1. Steam-electric power | a. Maximum reduction of nitrogen oxides by generating facilities. utilization of fuel which results in the formation of the least amount of air contaminant. |
| | b. Maximum reduction of nitrogen oxides by diverting electric power generation to facilities outside of Warning Area. |
| 2. Process steam | a. Maximum reduction of nitrogen oxides by facilities utilization of fuel which results in the formation of less air contaminant. |
| | b. Reduction of steam load demands consistent with continuing plant operations. |
| | c. Making ready for use a plan of action to be taken if an emergency develops. |
| 3. Manufacturing and if necessary, OR production and allied operations. the department to prepare emission control action programs. | a. Maximum reduction of nitrogen oxides from processing industries manufacturing operations by, assuming reasonable economic hardship by Other processes required by post-poning |
| | b. Maximum reduction of nitrogen oxides by deferring trade waste disposal operations which emit particles, gases, vapors or malodorous substances. |
| | c. Reduction of heat load demands for processing consistent with continuing plant operations. |
| 4. Stationary internal | a. Reduction of power demands for pumping combustion engines. consistent with continuing operations. |
| | b. Maximum reduction of nitrogen oxides by utilization of fuels or power source which results in the formation of less air contaminants. |

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TABLE 4 (Continued)

EMISSION REDUCTION REQUIREMENTS FOR NITROGEN OXIDES

| Source of Air Contamination | Air Pollution Emergency |
|---|---|
| 1. Steam-electric power | Maximum reduction of nitrogen oxides by generating facilities diverting electric power generation to facilities outside of Emergency Area. |
| 2. Process steam generating | Maximum reduction of nitrogen oxides by facilities reducing heat and steam demands to absolute necessities consistent with preventing equipment damage. |
| 3. Manufacturing and OR the department to prepare programs. | a. Elimination of nitrogen oxides from processing industries manufacturing operations by ceasing, curtailing, postponing, or deferring Other processes required by production and allied operations to the extent possible without causing injury to persons or emission control action damage to equipment. |
| | b. Elimination of nitrogen oxides from trade waste disposal processes which emit particles,gases, vapors or malodorous substances. |
| | c. Maximum reduction of heat load demands for processing. |

| | | |
|---|---|---|
| 4. Stationary internal combustion engines. | a. Maximum reduction of nitrogen oxides by reducing power demands to absolute necessities consistent with personnel safety and preventing equipment damage. | |
| | b. Maximum reduction of nitrogen oxides by utilization of fuels or power source which results in the formation of less air contaminants. | |

TABLE 5

EMISSION REDUCTION REQUIREMENTS FOR VOLATILE ORGANIC COMPOUNDS FOR CONTROL OF OZONE

| Source of Air Contamination | Air Pollution Alert | |
|---|---|---|
| 1. Petroleum products | Substantial reduction of volatile organic compounds by curtailing, storage and distribution postponing or deferring transfer operations. | |
| 2. Surface coating and allied operations. | Substantial reduction of volatile organic compounds by curtailing, postponing or preparation. deferring transfer operations. | |
| 3. Manufacturing and operations by the department to prepare emission control action programs. | Substantial reduction of volatile organic compounds from manufacturing processing industries OR curtailing, postponing, or deferring production Other persons required by and allied operations. | |

TABLE 5 (Continued)

EMISSION REDUCTION REQUIREMENTS FOR VOLATILE ORGANIC COMPOUNDS FOR CONTROL OF OZONE

| Source of Air Contamination | Air Pollution Warning | |
|---|---|---|
| 1. Petroleum products | Maximum reduction of volatile organic compounds storage and distribution. by assuming reasonable economic hardship by postponing transfer operations. | |
| 2. Surface coating and allied operations. | Maximum reduction of volatile organic compounds preparation by assuming reasonable economic hardship by postponing transfer operations. | |
| 3. Manufacturing and operation by, if necessary, postponing production and by the department to prepare emission control action programs. | Maximum reduction of volatile organic compounds processing industries from manufacturing OR assuming reasonable economic hardship by Other persons required | |

TABLE 5 (Continued)

EMISSION REDUCTION REQUIREMENTS FOR VOLATILE ORGANIC COMPOUNDS FOR CONTROL OF OZONE

| Source of Air Contamination | Air Pollution Emergency |
|---|---|

| | | |
|---|---|---|
| 1. Petroleum products deferring transfer equipment. | Elimination of volatile organic compounds by storage and distribution operations to the extent possible without | curtailing, postponing, or causing damage to |
| 2. Surface coating and operations | Elimination of volatile organic compounds by preparation. to the extent possible without causing damage | curtailing, postponing, or deferring to equipment. |
| 3. Manufacturing and ceasing, OR curtailing, postponing, or deferring production Other persons required by and allied operations to the extent possible the department to prepare without causing injury to persons or damage to emission control action equipment. programs. | Elimination of volatile organic compounds from processing industries | manufacturing operations by |

TABLE 6

EMISSION REDUCTION REQUIREMENTS FOR CARBON MONOXIDE

| Source of Air Contamination | Air Pollution Alert | |
|---|---|---|
| 1. Manufacturing and curtailing, OR the department to prepare emission control action programs. | Substantial reduction of carbon monoxide from processing industries postponing, or deferring production and allied Other persons required by | manufacturing operations by operations. |
| 2. Refuse disposal | Maximum reduction of carbon monoxide by operations. | eliminating open burning. |

TABLE 6 (Continued)

EMISSION REDUCTION REQUIREMENTS FOR CARBON MONOXIDE

| Source of Air Contamination | Air Pollution Warning | |
|---|---|---|
| 1. Manufacturing and if necessary, OR by the department to prepare emission control action programs. | Maximum reduction of carbon monoxide from processing industries assuming reasonable economic hardship by Other persons required | manufacturing operations by, postponing production and allied operations. |
| 2. Refuse disposal | Maximum reduction of carbon monoxide by operations. | eliminating open burning. |

TABLE 6 (Continued)

EMISSION REDUCTION REQUIREMENTS FOR CARBON MONOXIDE

| Source of Air Contaminants | Air Pollution Emergency | |
|---|---|---|
| 1. Manufacturing and ceasing, OR curtailing, postponing, or deferring production Other persons required by | Elimination of carbon monoxide from processing processing industries | manufacturing operations by and allied operations to the extent |

possible the department to prepare programs. without causing injury to persons or damage to emission control action equipment.

2. Refuse disposal Maximum reduction of carbon monoxide by operations. eliminating open burning.

**Federal Citation Number:**
**NR493.03(4)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Episode Levels and Episode Emission Control Action Programs
*Subheading:* Episode Orders
*Item Subpart:* Episode Action
*Federal Effective Date:* 02/13/87
*State SIP Citation#:* NR493.04(4)
*State Effective Date:*

**Regulatory Text**

(4) EPISODE ACTION. When the secretary determines that an air pollution episode condition exists at one or more monitoring sites solely because of emission from a limited number of sources, the secretary may order such source or sources to put into effect the emission control action programs which are applicable for each episode stage.

**Federal Citation Number:**
**NR493.02**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Air Pollution Episode Levels
*Subheading:* General Program (Definitions) Episode Emission Control-Action Program
*Item Subpart:*
*Federal Effective Date:* 02/13/87
*State SIP Citation#:* NR493.02
*State Effective Date:*

**Regulatory Text**
NR 493.02 GENERAL PROGRAM.

(1) Any person responsible for the operation of a direct source which emits 0.25 tons or more per day of any air contaminant for which air standards have been adopted shall prepare emission control action programs, consistent with good industrial practice and safe operating procedures, for reducing the emission of the air contaminants into the outdoor atmosphere during periods of an AIR POLLUTION ALERT, AIR POLLUTION WARNING, or AIR POLLUTION EMERGENCY declared under s. NR 493.01 (2). Emission control action programs shall be designed to reduce or eliminate emissions of air contaminants into the outdoor atmosphere in accordance with the requirements set forth in Tables 2 to 6 of s. NR493.03 (5).

(2) Emission control action programs are required under sub. (1) shall be in writing and show the source of air contamination, the approximate amount to reduction of contaminants, the approximate time required to effect the program, a brief description of the manner in which the reduction will be achieved during each stage of an air pollution episode declared under s. NR 493.01 (2), and such other information as the department deems pertinent.

(3) The emission control action programs required by sub. (1) shall be made available at all times on the premises of the operation to any person authorized to enforce the provisions of the department's episode procedure. A brief written description of the overall emission control action program, and the details of the program which affect specific functions of the overall operation, shall be posted at the locations where the functions are carried out.

(4) The emission control action programs required by sub. (1) shall be submitted to the department upon request within 60 days of the receipt of the request; the emission control action programs shall be subject to review and approval by the department. If, in the opinion of the department, an emission control action program does not effectively carry out the requirements set forth in Tables 2-6 of s. NR493.03(5), the department may disapprove the emission control action program, state its reason for disapproval, and order the preparation of an amended emission control action program within the time period specified in the order. If the person responsible fails within the time period specified in the order to submit an amended emission control action program which, in the opinion of the department, meets the requirements of this chapter, the department may revise the emission control action program. The revised program will thereafter be the emission control action program which the person responsible shall put into effect upon declaration of an air pollution episode by the secretary.

**Federal Citation Number:**
**NR155.03(7)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Ambient Air Quality
*Subheading:* Ambient Air Quality Standards
*Item Subpart:* Primary and Secondary Standards
*Federal Effective Date:* 08/31/84
*State SIP Citation#:* NR404.04(7)
*State Effective Date:*

**Regulatory Text**
(7) LEAD: PRIMARY AND SECONDARY STANDARDS. The primary and secondary standards for lead and its compounds, measured as elemental lead, are: 1.5 micrograms per cubic meter, maximum arithmetic mean averaged over a calendar quarter, as a constituent of suspended particulate matter.

**Federal Citation Number:**
**154.13 (13)e**

Last Updated: 10/17/96

| | |
|---|---|
| **State:** | **Wisconsin** |
| *Chapter Title:* | Wisconsin Department of Natural Resources |
| *Main Heading:* | Compliance Schedules, Exceptions, Registration and Deferrals for Organic Compound Emission Sources in Chapters NR 419 to 424 |
| *Subheading:* | Exceptions, Registrations and Non-ozone Season Allowances |
| *Item Subpart:* | Registration of Certain Solvents |
| *Federal Effective Date:* | 03/01/90 |
| *State SIP Citation#:* | 154.13 (13)e |
| *State Effective Date:* | |

**Regulatory Text**

(e) Registration of certain solvents, exemption. 1. Except for the provisions of sub. (1) (a) and (b), and this paragraph, this section does not apply to the use of methylene chloride and methyl chloroform.

2. Any person operating a source which has total combined emissions of methylene chloride and methyl chloroform in excess of 0.5 tons in a calendar year shall register the solvent use with the department by February 1 of the year following such use.

**Federal Citation Number:**
**154.13(12)(a)**

Last Updated: 10/17/96

| | |
|---|---|
| **State:** | **Wisconsin** |
| *Chapter Title:* | Wisconsin Department of Natural Resources |
| *Main Heading:* | Compliance Schedules, Exceptions, Registration, and Deferrals for Organic Compound Emission Sources in Chapters NR 419 to 424 |
| *Subheading:* | Compliance Schedules |
| *Item Subpart:* | Effective Dates; Process and Emission Control Equipment Installations; Equipment Modification |
| *Federal Effective Date:* | 06/10/85 |
| *State SIP Citation#:* | 154.13(12)(a) |
| *State Effective Date:* | |

**Regulatory Text**

(a) Applicability Exceptions. Paragraphs (b) through (h) do not apply to a source which is in compliance with the emission limitations of this section, provided the source has determined and certified compliance to the satisfaction of the department within 90 days after the date specified in subd. 1., 2., 3., or 4., nor do pars. (b) through (g) apply to a source on which construction or modification commenced on or after the specified date. Sources on which construction or modification commenced on or after the date specified in subd. 1., 2., 3. or 4., shall meet the emission requirements of this section in accordance with the provisions of par. (h).

1. The date of August 1, 1979, applies to all sources covered under subs. (2) (a) 1.c., (3) (a) 1.a., (3) (b) 1.a., (3) (c) 1.a., (4) (c) 1., (4) (d) 1., (4) (e) 1., (4) (f) 1., (4)(g) 1., (4) (h) 1., (4) (i) 1., (4) (j) 1., (6) (a) 1., (7) (a) 1., (7) (b) 1., and (7) (c) 1.

2. The date of April 1, 1981, applies to all sources covered under subs. (2) (a) 1.d., (2) (b) 1., (3) (a) 1.b., (3) (b) 1.b., (3) (c) 1.b., (3) (e) 1., (4) (k) 1., (4) (l) 1., (4) (m) 1., (6) (b) 1., (7) (d) 1., and (9) (a) 1.

3. The date of August 31, 1981, applies to all sources covered under sub. (8) (a) 1.

4. The date of January 1, 1984 applies to all sources covered under sub. (6) (c) 1.

**Federal Citation Number:**
**154.13(12)(g)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Compliance Schedules, Exceptions, Registration, and Deferrals for Organic Compound Emission Sources
*Subheading:* Compliance Schedules
*Item Subpart:* Final Compliance Plans (c) & (d)
*Federal Effective Date:* 06/10/85
*State SIP Citation#:* 154.13(12)(g)
*State Effective Date:*

**Regulatory Text**

3. Process lines covered under subs. (2) (a) 1.d., (2) (b) 1., (3) (a) 1.b., (3) (b) 1.b., (3) (c) 1.b., (3) (e) 1., (4) (k) 1., (4) (1) 1., (4) (m) 1., (6) (b) 1., (6) (c) 1., (7) (d) 1., (8) (a) 1., and (9) (a) 1. on which construction or modification commenced on or after August 1, 1979 but before April 1, 1981, shall continue to comply with the requirements of sub. (11) (a) 2.b during any interim period prior to the final compliance date in the applicable compliance schedule.

4. Process lines covered under sub. (8) (a) 1. on which construction or modification commenced on or after April 1, 1981 but before August 31, 1981, and process lines covered under sub. (6) (c) 1. on which construction or modification commenced on or after April 1, 1981 but before January 1, 1984 shall continue to comply with the requirements of sub. (11) (a) 2.c during any interim period prior to the final compliance date in teh applicable compliance schedule.

**Federal Citation Number:**
**154.13(12)(g)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Compliance Schedules, Exceptions, Registration, and Deferrals for Organic Compound Emission Sources
*Subheading:* Compliance Schedules
*Item Subpart:* Final Compliance Plans (c) & (d)
*Federal Effective Date:* 06/10/85
*State SIP Citation#:* 154.13(12)(g)
*State Effective Date:*

**Regulatory Text**

3. Process lines covered under subs. (2) (a) 1.d., (2) (b) 1., (3) (a) 1.b., (3) (b) 1.b., (3) (c) 1.b., (3) (e) 1., (4) (k) 1., (4) (l) 1., (4) (m) 1., (6) (b)1., (6) (c) 1., (7) (d) 1., (8) (a) 1., and (9) (a) 1. on which construction or modification commenced on or after August 1, 1979 but before April 1, 1981, shall continue to comply with the requirements of sub. (11) (a) 2.b during any interim period prior to the final compliance date in the applicable compliance schedule.

4. Process lines covered under sub. (8) (a) 1. on which construction or modification commenced on or after April 1, 1981 but before August 31, 1981, and process lines covered under sub. (6) (c) 1. on which construction or modification commenced on or after April 1, 1981 but before January 1, 1984 shall continue to comply with the requirements of sub. (11) (a) 2.c during any interim period prior to the final compliance date in the applicable compliance schedule.

**Federal Citation Number:**
**154.13(12)(h)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Compliance Schedules, Exceptions, Registration, and Deferrals for Organic Compound Emission Sources
*Subheading:* Compliance Schedules
*Item Subpart:* New and Modified Sources
*Federal Effective Date:* 06/10/85
*State SIP Citation#:* 154.13(12)(h)
*State Effective Date:*

**Regulatory Text**

(h) New and modified sources. Any source on which construction or modification commenced on or after the date specified for such source in par. (a) 1., 2., 3. or 4. shall meet the emission limitations of this section upon start-up unless the owner or operator of the source demonstrates, to the satisfaction of the department, that compliance upon start-up would be technologically infeasible. Such sources shall instead meet a department-specified compliance schedule which provides for interim emission limitations and for ultimate compliance with the emission limitations of this section. Ultimate compliance shall be as soon as practicable but in no event later than the date the source would have been required to meet under par. (b), (c), (d), or (f) if it had been constructed or modified prior to the date specified in par. (a) 1., 2., 3. or 4.

**Federal Citation Number:**
**154.13(12)(d)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Compliance Schedules, Exceptions, Registration, and Deferrals for Organic Compound Emission Sources
*Subheading:* Equipment Modification
*Item Subpart:*
*Federal Effective Date:* 06/10/85
*State SIP Citation#:* 154.13(12)(d)
*State Effective Date:*

**Regulatory Text**

(d) Equipment modification.

1. Except as provided under par. (3) and sub. (13), the owner or operator of a VOC source proposing to comply with the requirements of this section by modification of existing processing or emission control equipment shall not exceed the deadlines specified for the following increments of progress as measured from the date specified in par. (a) 1., 2. or 4. for that source.

a. Submit final plans for achieving compliance within 5 months.

b. Award contracts for equipment modifications or issue orders for the purchase of component parts to accomplish equipment modifications within 7 months.

c. Commence construction or installation of equipment modifications within 10 months.

d. Complete construction or installation of equipment modifications within 16 months.

e. Achieve final compliance within 20 months of the date specified in par. (a) 1., 2. or 4. for that source.

2. Any owner or operator of a source subject to the compliance schedule of subd. 1. shall certify to the department, within 7 days after the deadline for each increment of progress, whether the required increment of progress has been achieved.

**Federal Citation Number:**
**154.13(12)(b)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Compliance Schedules, Exceptions, Registration, and Deferrals for Organic Compound Emission Sources
*Subheading:* Process and Emission Control Equipment Instalations
*Item Subpart:*
*Federal Effective Date:* 06/10/85
*State SIP Citation#:* 154.13(12)(b)
*State Effective Date:*

**Regulatory Text**

(b) Process and emission control equipment installations.

1. Except as provided under par. (e) and sub. (13), the owner or operator of a VOC emission source proposing to install and operate VOC emission control equipment or replacement process equipment to comply with the emission limiting requirements of this section shall not exceed the deadlines specified for the following increments of progress as measured from the date specified in par. (a) 1., 2., 3. or 4. for that source:

a. Submit final plans for achieving compliance within 5 months.

b. Award contracts for the emission control systems or process equipment or issue orders for purchase of component parts to accomplish emission control within 8 months.

c. Commence construction or installation of the emission control system or process equipment within 13 months.

d. Complete construction or installation of the emission control system or process equipment within 25 months.

e. Achieve final compliance within 26 months of the date specified in par. (a) 1., 2., 3. or 4. for that source.

2. Any owner or operator of a source subject to the compliance schedule of subd. 1. shall certify to the department, within 7 days after the deadline for each increment of progress, whether the required increment of progress has been achieved.

**Federal Citation Number:**
**NR154.04(3)(a)**

Last Updated: 09/20/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Construction or Modification and New Operation Permits
*Subheading:* Exempt Modifications
*Item Subpart:* Use of Alternate Fuel or Raw Material
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR154.04(3)(a)
*State Effective Date:*

**Regulatory Text**
(3) EXEMPT MODIFICATIONS.

**Federal Citation Number:**
**NR154.04(3)(b)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Construction or Modification and New Operation Permits
*Subheading:* Exempt Modifications
*Item Subpart:* VOC RACT Compliance
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR154.04(3)(b)
*State Effective Date:*

**Regulatory Text**

(b) VOC RACT compliance. No construction or modification and new operation permit is required for the modification of a source which is made primarily for the purpose of complying with the requirements of a RACT compliance plan approved under s. NR 154.13, or a VOC RACT variance approved under s. NR 154.02(3), if the modification does not cause or exacerbate the violation of an ambient air quality standard or ambient air increment for any air contaminant other than ozone.

**Federal Citation Number:**
**NR154.04(3)(c)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Construction or Modification and New Operation Permits
*Subheading:* Exempt Modifications
*Item Subpart:* Resumption of Operation
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR154.04(3)(c)
*State Effective Date:*

**Regulatory Text**

(c) Resumption of operation. No construction or modification and new operation permit is required for the resumption of operation of a source after a period of closure if the source was never included and never required to be included in the source inventory as an existing source covered by plans under x. 144.31 (1) (f), Stats., and the resumption of operation of the source will not cause or exacerbate the violation of an ambient air quality standard or an ambient air increment and will not result in the emission of a new air contaminant and the resumption of operation is not prohibited by any permit, plan approval or special order applicable to the source.

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Construction or Modification and New Operation Permits
*Subheading:* Exempt Modifications
*Item Subpart:* Municipal Waste Fuel
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR154.04(3)(d)
*State Effective Date:*

**Regulatory Text**

(d) Municipal waste fuel. No construction or modification and new operation permit is required for the modification of a steam-generating unit to use an alternate fuel, whether or not the unit has the design capability to use the alternate fuel, to the extent that the alternate fuel is generated from municipal garbage and refuse which has undergone a separation process to minimize noncombustible materials, if the department publishes a written determination under this paragraph that:

1. Such use will not cause or exacerbate the violation of an ambient air quality standard or ambient air increment; and

2. Any emissions of hazardous air contaminants resulting from such use will not present a significant hazard to public health, safety or welfare or to the environment.

**Federal Citation Number:**
**NR154.04(4)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Construction or Modification and New Operation Permits
*Subheading:* Exempt Relocations
*Item Subpart:*
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR154.04(4)
*State Effective Date:*

**Regulatory Text**
(4) EXEMPT RELOCATIONS.

(a) In addition to the approved relocated sources which are exempt from the need for an additional permit under s. 144.391 (5), Stats., and the relocation of an emissions unit within the contiguous property of an attainment area major source, no construction or modification and new operation permit is required for the relocation of an emissions unit within the contiguous property of a minor source or a nonattainment area major source if:

1. The relocation of the emissions unit is not prohibited by any permit, plan approval or special order applicable to the source;

2. The emissions unit will not be modified;

3. The emissions unit meets all applicable emission limitations; and

4. The emissions unit's stack height or stack gas exit velocity or temperature will not be decreased.

(b) If the criteria in par. (a) 1., 2., and 3. are met but the emissions unit's stack height or stack gas exit velocity or temperature will be decreased, no construction or modification and new operation permit is required for the relocation of the emissions unit if the allowable emissions from the source will not cause or exacerbate the violation of an ambient air quality standard or ambient air increment.

**Federal Citation Number:**
**154.04(1)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Construction or Modification and New Operation Permits
*Subheading:* Permit Requirements and Exemptions for Construction or Modification and New Operation Permits
*Item Subpart:* Requirement
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* 406.03
*State Effective Date:*

**Regulatory Text**

154.04 PERMIT REQUIREMENTS AND EXEMPTIONS.

(1) CONSTRUCTION OR MODIFICATION AND NEW OPERATION PERMITS. No person may commence construction, reconstruction, replacement, relocation or modification of a stationary source or operate the constructed, reconstructed, replaced, relocated or modified stationary source unless the person has a construction or modification and new operation permit for the source or unless the source is exempt from the requirement to obtain a permit under s. 144.391 (4) or (5), Stats., or under this section. Applications for the construction or modification and new operation permit shall be submitted on forms which are available from the department at its Madison headquarters and district offices.

**Federal Citation Number:**
**NR154.04(6)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Construction or Modification and New Operation Permits
*Subheading:* Scope of Exemption
*Item Subpart:*
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR154.04(6)
*State Effective Date:*

**Regulatory Text**
(6) SCOPE OF EXEMPTION.

(a) Exemption or the granting of an exemption under this section from the requirement to obtain a permit does not relieve any person from compliance with the emission limitations of this chapter, the air quality requirements of ch. NR 155, the reporting requirements of ch. NR 101, or with any other provision of law.

(c) Subsequent to May 1, 1983, if a person constructs or modifies a stationary source in increments which individually are exempt from the requirements for a permit under this section, the person is required to obtain a construction or modification and new operation permit for the source prior to commencing construction or modification of the increment which in combination with the other increments occurring since July 1, 1975 or since the date of the last construction or modification and new operation permit or plan approval issued to the stationary source, whichever is later, will:

1. Emit sulfur dioxide, carbon monoxide or nitrogen oxides at a rate of more than 9 pounds per hour for each pollutant emitted, without considering pollution control equipment:

2. Emit particulate matter or organic compounds at a rate of more than 5.7 pounds per hour for each pollutant emitted, without considering pollution control equipment; or

3. Emit any of the following air contaminants at a rate greater than the applicable emission rate listed:

a. Fluorides, 3 tons per year;

b. Hydrogen sulfide, 10 tons per year;

c. Reduced sulfur compounds, 10 tons per year;

d. Total reduced sulfur, 10 tons per year;

e. Vinyl chloride, 1 ton per year.

**Federal Citation Number:**
**154.04(2)(a)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Construction or Modification and New Operation Permits
*Subheading:* Sources Exempt From Construction or Modification and New Operation Permit Requirements
*Item Subpart:* Specific Categories of Exempt Sources
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* 154.04(2)(a)
*State Effective Date:*

**Regulatory Text**

(a) Specific categories of exempt sources. The following categories of stationary sources are exempt from the requirement to obtain a construction or modification and new operation permit unless the construction, reconstruction, replacement, relocation or modification of the source is prohibited by any permit, plan approval or special order applicable to the source or the source is required to obtain a permit because of incremental growth as determined under sub. (6)(c):

1. Fuel burning equipment which will not burn any hazardous waste identified under ch. NR 181, or which has been issued a permit under ch. NR 181, and which is designed to burn the following fuels at the rates indicated:

a. Coal, coke or other solid fuels, except wood, at a heat input rate of not more than one milliion BTU per hour;

b. Wood alone or wood in combination with gaseous or liquid fuels at a heat input rate of not more than 5 million BTU per hour;

c. Residual or crude oil at a heat input rate of not more than 5 million BTU per hour;

d. Distillate oil at a heat input rate of not more than 10 million BTU per hour; and

e. Gaseous fuel at a heat input rate of not more than 30 million BTU per hour.

2. Equipment designed to incinerate solid wastes, which are not pathological wastes and are not hazardous wastes under ch. NR 181, at a rate of not more than 500 pounds per hour.

3. Equipment designed to dry grain at a rate of not more than 1,500 bushels per hour at 5% moisture extraction.

4. Portland concrete batching plants which are not major sources.

5. Storage tanks of petroleum liquid or nonvolatile organic compounds with a maximum capacity of not more than 40,000 gallons of petroleum liquid or of organic compounds which are not VOCs.

6. VOC storage tanks with a maximum capacity of not more than 10,000 gallons of volatile organic compounds.

7. Painting or coating operations, including associated cleaning operations, which use or will use not more than 250 total gallons of paint, coatings and solvents per month or which emit or will emit not more than 1666 pounds of volatile organic compounds per month, without considering pollution control equipment.

8. Graphic arts operations, including associated cleaning operations, which use or will use not more than 250 total gallons of coatings, inks and solvents per month or which emit or will emit not more than 1666 pounds of organic compounds per month, without considering pollution control equipment.

9. Research and testing.

a. Equipment used or to be used for the purpose of testing or research provided:

1) A complete application for exemption is made describing the proposed testing or research and including an operating schedule and the types and quantities of emissions anticipated; and

2) The department determines that the equipment to be used and the anticipated emissions from the testing or research will not present a significant hazard to public health, safety or welfare or to the environment and approves the application for exemption.

b. The department shall approve or deny the application in writing within 45 days of receiving a complete application for exemption under this subdivision. The department may provide an opportunity for public comment and an opportunity to request a public hearing and may hold a public hearing on any application under this subdivision. The department shall make all nonconfidential information available to the public upon request.

10. A laboratory which emits organic compounds, sulfur dioxide, carbon monoxide, nitrogen oxides or particulate matter or a combination thereof at a rate of less than 5.7 pounds per hour. Emissions shall be determined, without considering pollution control equipment, by dividing the total emissions during a calendar month by the total hours of operation of the laboratory during that calendar month. A laboratory is in operation if laboratory apparatus or equipment is in use.

11. Equipment whose primary purpose is to transport or sort paper.

12. Water chlorination facilities.

13. An indirect source located in a standard metropolitan statistical area (SMSA) which meets one of the following criteria:

a. Any new parking facility, or other new indirect source, except a highway or airport, with an associated parking area, which has a parking capacity of not more than 1,000 cars.

b. Any modified parking facility or any modification of an associated parking area which increases parking capacity by not more than 500 cars.

c. Any new highway project with an anticipated annual peak hour traffic volume of not more than 1,200 vehicles per hour within 10 years of construction.

d. Any highway modification project which will increase the annual peak hour traffic volume by not more than 1,200 vehicles per hour within 10 years after modification.

14. An indirect source located outside all SMSA's which meets one of the following criteria:

a. Any new parking facility or other new indirect source, except a highway or airport, with an associated parking area which has a parking capacity of not more than 1,500 cars.

b. Any modified parking facility or any modification of an associated parking area which increases parking capacity by not more than 750 cars.

c. Any new highway project which will carry not more than 3 lanes of traffic and which has an anticipated annual peak hour traffic volume of not more than 1,800 vehicles per hour within 10 years of construction.

d. Any highway modification project which will create not more than one additional lane of traffic and which will increase the annual peak hour traffic volume by not more than 1,800 vehicles per hour within 10 years after modification.

15. An airport whose construction or general modification program is expected to result in the following activity within 10 years after construction or modification:

a. New airport: Not more than 50,000 operations per year by regularly scheduled certificated air carriers and use by not more than 1,000,000 passengers per year.

b. Modified airport: Increase of not more than 50,000 operations per year by regularly scheduled certificated air carriers over the existing volume of operations and an increase of not more than 1,000,000 passengers per year.

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Construction or Modification and New Operation Permits
*Subheading:* Sources Exempt From Construction or Modification and New Operation Permit Requirements
*Item Subpart:* General Categories of Exempt Sources
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR154.04(2)(b)
*State Effective Date:*

**Regulatory Text**

(b) General category of exempt sources. In addition to the specific categories of exempt sources identified in par. (a), no construction or modification and new operation permit is required prior to commencing construction, reconstruction, replacement, relocation or modification and operation of a source if:

1. The construction, reconstruction, replacement, relocation or modification and operation of the source is not prohibited by any permit, plan approval or special order applicable to the source;

2. The source will not emit sulfur dioxide, carbon monoxide or nitrogen oxides at a rate of more than 9 pounds per hour for each pollutant emitted, without considering pollution control equipment;

3. The source will not emit particulate matter or organic compounds at a rate of more than 5.7 pounds per hour for each pollutant emitted, without considering pollution control equipment;

4. The source will not emit any of the following air contaminants at a rate greater than the applicable emission rate listed:

a. Fluorides, 3 tons per year;

b. Hydrogen sulfide, 10 tons per year;

c. Reduced sulfur compounds, 10 tons per year;

d. Total reduced sulfur, 10 tons per year;

e. Vinyl chloride, 1 ton per year.

5. The source will not emit asbestos, antimony, barium, beryllium, bromine, cadmium, chlorine, chromic acid, chromates, chromium, cobalt fume or dust, copper fume or dust, cyanides, fluorine, hydrogen chloride, hydrogen fluoride, iron (water soluble salts), lead, manganese, mercury, molybdenum, nickel carbonyl, nickel, nitric acid including anhydrides, phosphoric acid including anhydrides, phosphorus (yellow), platinum (water soluble salts), selenium, sulfuric acid, thallium (water soluble compounds), tin, uranium, vanadium, pesticides, their mixtures, or their mixtures, or their compounds or any other pollutant not listed in subd. 2., 3., 4., or this subdivision which is subject to regulation under the federal clean air act as of May 1, 1983;

6. The source will not emit any air contaminant not mentioned in subd. 2., 3., 4., or 5., at a rate of more than 6 pounds per hour for each pollutant emitted, without considering pollution control equipment; and

7. The source is not required to obtain a permit because of incremental growth as determined under sub. (6) (c).

**Federal Citation Number:**
**NR154.04(2)(c)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Construction or Modification and New Operation Permits
*Subheading:* Sources Exempt From Construction or Modification and New Operation Permit Requirements
*Item Subpart:* Exempt Modifications of Existing Sources
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR154.04(2)(c)
*State Effective Date:*

**Regulatory Text**

(c) Exempt modifications of existing sources. In addition to the exempt modifications listed in s. 144.391 (4), Stats., no construction or modification and new operation permit is required prior to commencing modification of a source which is modified by the addition of a new emissions unit or by any other modification if:

1. The modification is not prohibited by any permit, plan approval or special order applicable to the source;

2. The modification is exempt under par. (a) or the emissions from the modifiction do not exceed the exemption levels set forth in par. (b) 2., 3., 4., 5., and 6., and

3. The source is not required to obtain a permit because of incremental growth as determined under sub. (6) (c).

**Federal Citation Number:**
**NR154.145(1)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Lead Emissions
*Subheading:* General Limitations
*Item Subpart:* Lead emission limitation
*Federal Effective Date:* 08/31/84
*State SIP Citation#:* NR427.025
*State Effective Date:*

**Regulatory Text**

NR 154.145 CONTROL OF LEAD EMISSIONS. (1) GENERAL LIMITATIONS. No person may cause, allow or permit emissions into the ambient air of lead or lead ocmpounds which substantially contribute to the exceeding of an air standard or air increment, or which creates air pollution.

**Federal Citation Number:**
**NR154.145(2)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Lead Emissions
*Subheading:* Specific Source Limitations
*Item Subpart:* Lead emission limitation
*Federal Effective Date:* 08/31/84
*State SIP Citation#:* NR427.03
*State Effective Date:*

**Regulatory Text**

(2) LEAD LIMITATIONS. No person may cause, allow or permit lead or lead compounds to be emitted to the ambient air in amounts greater than the department may establish by permit condition under s. 144.393(5) or 144.394, Stats., by rule or by special order.

**Federal Citation Number:**
**154.01(178m)**

Last Updated: 10/17/96

| | |
|---|---|
| **State:** | **Wisconsin** |
| *Chapter Title:* | Wisconsin Department of Natural Resources |
| *Main Heading:* | Control of Organic Compound Emissions from Solvent Cleaning Operations |
| *Subheading:* | Definitions |
| *Item Subpart:* | Solvent Recovery Dryer |
| *Federal Effective Date:* | |
| *State SIP Citation#:* | 154.01(178m) |
| *State Effective Date:* | |

**Regulatory Text**

(178m) "Solvent recovery dryer" means a dry cleaning dryer that employs a condenser to liquefy and recover solvent vapors evaporated in a closed-loop, recirculating stream of heated air.

**Federal Citation Number:**
**154.13(6)(c)2**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Organic Compound Emissions From Solvent Cleaning Operations
*Subheading:* Petroleum Liquid Solvent Dry Cleaning
*Item Subpart:* Requirements
*Federal Effective Date:* 06/10/85
*State SIP Citation#:* 154.13(6)(c)2
*State Effective Date:*

**Regulatory Text**
2. 'Requirements".

a. The owner or operator of a petroleum liquid solvent dry cleaning facility shall limit VOC emissions from each petroleum liquid solvent dry cleaning dryer to an average of 3.5 kilograms per 100 kilograms, dry weight, of articles cleaned, or install and operate a solvent recovery dryer in a manner such that the dryer remains closed and the recovery phase continues until the flow rate of recovered solvent no longer exceeds 50 milliliters per minute.

b. The owner or operator of a petroleum liquid solvent dry cleaning facility shall reduce the VOC content of all filtration wastes to not more than 1.0 kilogram per 100 kilograms, dry weight, of articles cleaned before disposing of such wastes or exposing them to the atmosphere, or install and operate a cartridge filtration system, and drain the filter cartridges in their sealed housings for at least 8 hours before removing them.

c. The owner or operator of a petroleum liquid solvent drycleaning facility shall repair all solvent vapor and liquid leaks within 3 working days of their discovery. If necessary repair parts are not on hand, the owner or operator shall order them within 3 working days following discovery of solvent vapor or liquid leaks and repair the leaks within 3 working days following receipt of the parts.

**Federal Citation Number:**
**154.13(6)(c)(1)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Organic Compound Emissions from Solvent Cleaning Operations
*Subheading:* Petroleum Liquid Solvent Dry Cleaning
*Item Subpart:* Applicability
*Federal Effective Date:* 06/10/85
*State SIP Citation#:* 154.13(6)(c)(1)
*State Effective Date:*

**Regulatory Text**
(c) Petroleum liquid solvent dry cleaning.

1. 'Applicability'. Effective January 1, 1984, this paragraph applies, subject to the provisions of sub. (12), to petroleum liquid solvent washers, dryers, solvent filters, settling tanks, vacuum stills, piping, ductwork, pumps, storage tanks, and other containers and conveyors of petroleum liquid solvent that are used in petroleum liquid solvent dry cleaning facilities which have total emissions of VOCs from the facility of more than 100 tons per year and which are located within the counties of Kenosha, Milwaukee, Ozaukee, Racine, Washington, or Waukesha.

**Federal Citation Number:**
**154.13(4)(c)3**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Organic Compound Emissions from Surface Coating, Printing and Asphalt Surfacing Operations
*Subheading:* Can Coating
*Item Subpart:* Compliance Extensions
*Federal Effective Date:* 09/09/85
*State SIP Citation#:* 154.13(4)(c)3
*State Effective Date:*

**Regulatory Text**

3. Compliance extensions. a. Notwithstanding the emission limitations of subd. 2 and the provisions of sub. (12), the department may extend until December 31, 1985 the deadline for compliance with the emission limitations of subd. 2, provided that:

1) The can coating operation is a sheet basecoat (exterior or interior) or overvarnish operation and by itself or by the internal offset provisions of sub. (13) (b) meets an interim VOC emission limitation after December 31, 1982 of 0.48 kilograms per liter of coating (4.0 pounds per gallon), excluding water, delivered to each coating applicator, or

2) The can coating operation is an end sealing compound operation and, by itself or by the internal offset provisions of sub. (13) (b), meets an interim VOC emission limitation after December 31, 1982 of 0.52 kilograms per liter of coating (4.3 pounds per gallon), excluding water delivered to each coating applicator, and

3) The owner or operator of the can coating facility submits a written request for a compliance extension under this subdivision and shows, to the department's satisfaction, that a compliance extension is necessary in order to comply with the emission limitations of subd. 2 through the use of low solvent content coating application technology.

b. If, during the term of an extension granted under this subdivision, the department determines that the can coating operation is not meeting its interim emission limitation, that advances in low solvent content coating application technology eliminate the need for the extension, or that the emission limitations of subd. 2 can be met without the use of energy intensive control devices, it may terminate the extension. Upon termination, the emission limitations of subd. 2 shall apply.

**Federal Citation Number:**
**154.13(4)(b)3**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Organic Compound Emissions from Surface Coating, Printing and Asphalt Surfacing Operations
*Subheading:* Methods of Compliance
*Item Subpart:* Capture Systems
*Federal Effective Date:* 09/09/85
*State SIP Citation#:* 154.13(4)(b)3
*State Effective Date:*

**Regulatory Text**

3. Capture systems. The design, operation, and efficiency of any capture system used in conjunction with subd. 1.b., c. or d. shall be certified in writing by the owner or operator. The efficiency of the capture system shall be great enough to insure that the emission rate from the controlled line is less than or equal to an emission rate determined using the equation in sub. (13)(b) 1.c. The capture system is subject to approval by the department.

**Federal Citation Number:**
**154.13(9)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Organic Compound Emissions
*Subheading:* Chemical Manufacture
*Item Subpart:*
*Federal Effective Date:* 07/21/82

*State SIP Citation#:* 154.13(9)
*State Effective Date:*

**Regulatory Text**
(9) CHEMICAL MANUFACTURE.

(a) Pharmaceutical manufacture.

1. Applicability. Effective (effective date), this paragraph applies, subject to the provisions of sub. (12), to all operations at pharmaceutical manufacturing facilities involved in the manufacture of pharmaceutical products by chemical synthesis, with the exception of any reactor, distillation unit, dryer, filter, crystallizer, centrifuge, or other individual operation that has a potential emission rate of less than 6.8 kilograms per day (15 pounds per day).

2. Emission control requirements. Except as provided under subd. 1., the owner or operator of a synthesized pharmaceutical manufacturing facility shall:

a. Equip each vent from reactors, distillation operations, crystallizers, centrifuges, or vacuum dryers with surface condensers or an equally effective control device as approved by the department. If a surface condenser is used, the condenser outlet gas temperature shall not exceed:

1) -25 degrees C (-13 degrees F) for VOCs with vapor pressure greater than 40 pKa (5.8 psia) as measured at 20 degrees C (68 degrees F);

2) -15 degrees C (5 degrees F) for VOCs with vapor pressure between 20 kPa (2.9 psia) and 40 kPa (5.8 psia) as measured at 20 degrees C (68 degrees F);

3) 0 degrees C (32 degrees F) for VOCs with vapor pressure between 10 kPa (1.5 psia) and 20 kPa (2.9 psia) as measured at 20 degrees C (68 degrees F);

4) 10 degrees C (50 degrees F) for VOCs with vapor pressure between 7 kPa (1.0 psia) and 10 kPa (1.5 psia) as measured at 20 degrees C (68 degrees F);

5) 25 degrees C (77 degrees F) for VOCs with vapor pressure between 3.5 kPa (0.5 psia) and 7 kPa (1.0 psia) as measured at 20 degrees C (68 degrees F).

b. Limit the VOC emissions from air dryer exhaust systems and production equipment exhaust systems to 15.0 kilograms per day (33 pounds per day) or to 10% of the uncontrolled emission rate of the system, whichever is less stringent.

c. Enclose all centrifuges, rotary vacuum filters, and any other filters having an exposed liquid surface, where the liquid contains VOCs and exerts a total VOC vapor pressure of 3.5 kPa (0.5 psia) or more at 20 degrees C (68 degrees F).

d. Install covers on all in-process tanks that contain a VOC at any time. Covers are to be closed except for necessary operator access during production, sampling, maintenance or inspection.

e. Repair all visually detectible leaks of liquid VOCs the first time the equipment is off-line for a period long enough to complete the repair.

(b) Reserved.

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Organic Compound Emissions
*Subheading:* Compliance Schedules
*Item Subpart:*
*Federal Effective Date:* 07/21/82

*State SIP Citation#:* 154.13(12)
*State Effective Date:*

**Regulatory Text**
(12) COMPLIANCE SCHEDULES

(c) Low solvent content coating or ink.

1. Except as provided under subds. 2. through 5., par (e) and sub. (13), the owner or operator of a VOC source proposing to employ low solvent content coating or ink application technology to comply with the requirements of this section shall not exceed the deadlines specified for the following increments of progress as measured from the date specified in par. (a)1., 2. or 3. for that source:

a. Submit final plans for achieving compliance within 5 months.

b. Complete research and development work on low solvent content coatings or inks within 14 months.

c. Complete evaluation of product quality and commercial acceptability within 18 months.

d. Issue purchase orders for low solvent content coatings or inks and process modifications within 19 months.

e. Commence process modifications within 21 months.

f. Complete process modifications and begin the use of low solvent content coatings or inks within 27 months.

g. Achieve final compliance within 28 months of the date specified in par. (a)1., 2. or 3. for that source.

2. The owner or operator of a can coating or flexible packaging facility proposing to employ low solvent content coating technology to comply with the requirements of subs. (4)(c)2.d. or (4)(e)2. may exceed each of the deadlines in subd. 1.b. through g. by 12 months in developing acceptable can end sealing compounds or coatings for hydrophobic flexible packaging substrates.

3. The owner or operator of a graphic arts facility proposing to employ low solvent content ink application technology to comply with the requirements of sub. (4)(1) may, for hydrophobic substrates, extend the date for achieving final compliance to December 31, 1985 provided:

a. Final plans for achieving compliance are submitted by [5 months after effective date];

b. The plans include the increments of progress described in subd. 1.b. through f.;

c. Sufficient documentation is submitted to justify the extension; and

d. The plans provide for final compliance by December 31, 1985 through the use of an emission reduction system described in sub. (4)(1)2.c. and 3. in case the product quality and commercial acceptability evaluation shows low solvent content ink application technology to be unsatisfactory.

4. The owner or operator of a miscellaneous metal parts and products coating facility proposing to employ low solvent content coating technology to comply with the requirements of sub. (4)(m) may, for extreme performance coatings requiring prolonged product quality evaluation periods, extend final compliance provided:

a. Final plans for achieving compliance are submitted by [5 month after effective date];

b. The plans include the increments of progress described in subd. 1.b. through f.;

c. Sufficient documentation is submitted to justify the extension; and

d. Final compliance is extended to accommodate the prolonged evaluation period but in no case beyond December 31, 1985.

5. Where the department determines that the low solvent content coating or ink application technology has been sufficiently researched and developed for a particular application, the owner or operator of a VOC source proposing to comply with the requirements of this section through application of low solvent content coatings or inks shall not exceed the deadlines specified for the following increments of progress as measured from the date specified in par. (a)1., 2. or 3. for that source:

a. Submit final plans for achieving compliance within 5 months.

b. Complete evaluation of product quality and commercial acceptability within 11 months.

c. Issue purchase orders for low solvent content coatings or inks and process modifications within 13 months.

d. Commence process modifications within 15 months.

e. Complete process modifications and begin the use of low solvent content coatings or inks within 20 months.

f. Achieve final compliance within 21 months of the date specified in par. (a)1., 2. or 3. for that source.

6. Any owner or operator of a stationary source subject to one of the compliance schedules in this paragraph shall certify to the department, within 7 working days after the deadline for each increment of progress, whether the required increment of progress has been achieved.

(e) Alternate compliance schedules.

1. Notwithstanding the deadlines specified in pars. (b) through (d), for any particular source the department may issue or approve a separate compliance schedule with earlier deadlines, if it finds that such a schedule would be feasible, or with later deadlines if it finds that those specified in pars. (b) through (d) would not be feasible. The alternate compliance schedule may be proposed by the owner or operator of a VOC source. If the alternate compliance schedule provides later deadlines, the following conditions shall be met:

a. A request for an alternate compliance schedule shall be received by the department within 2 months of the date specified in par. (a)1., 2. or 3. for that source.

b. Final plans for achieving compliance with the requirements of this section shall be submitted within 5 months of the date specified in par. (a)1., 2. or 3. for that source.

c. The alternative compliance schedule shall include the same increments of progress as the schedule it is to replace.

d. Sufficient documentation and certification from appropriate suppliers, contractors, manufacturers, or fabricators shall be submitted by the owner or operator to justify the new deadlines proposed for the increments of progress.

2. All alternate compliance schedules proposed or promulgated under par. (e) shall provide for compliance of the source with the requirements of subs. (2) through (10) as expeditiously as practicable but not later than December 31, 1982 or, where the owner or operator proposes to comply through development of a new surface coating which is subject to approval by a federal agency, not later than December 31, 1985.

3. Any schedule approved under this paragraph may be revoked at any time if the source does not meet the deadlines specified for the increments of progress. Upon any such revocation the applicable schedule under pars. (b) to (d) shall be in effect.

(f) Phased emission reduction schedules.

1. This paragraph applies only to sources covered under sub. (4)(g) and (m)3.

2. Except as provided under sub. (13), the owner or operator of a source required to undertake a phased compliance program shall not exceed the following deadlines:

a. Plans for the program of phased compliance shall be submitted within 12 months of the date specified in par. (a)1. or 2. for that source.

b. The compliance plan shall specify increments of progress with such deadlines as necessary to meet interim compliance dates specified in the applicable rule.

c. Final compliance shall be on or before the date specified in the applicable rule or approved compliance plan, but not later than December 31, 1987.

(g) Final compliance plans.

1. If the department finds any compliance plan under this subsection to be unsatisfactory, it may require that the plan be resubmitted with appropriate revisions.

2. Process lines subject to requirements of this subsection on which construction or modification commenced on or before August 1, 1979 shall continue to comply with the requirements of sub. (11)(a)2.a. during any interim period prior to the final compliance date in the applicable compliance schedule.

5. Where a source is not subject to requirements of this subsection and was previously unregulated under this section, the final compliance plan shall specify reasonable measures to minimize emissions of VOCs during the interim period prior to the final compliance date.

**Federal Citation Number:**
**154.13(1)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Organic Compound Emissions
*Subheading:* General Limitations
*Item Subpart:*
*Federal Effective Date:* 07/21/82

*State SIP Citation#:* 154.13(1)
*State Effective Date:*

**Regulatory Text**
NR 154.13 Control of organic compound emissions. GENERAL LIMITATIONS.

(a) No person shall cause, allow or permit organic compound emissions into the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution.

(b) No person shall cause, allow or permit organic compounds to be used or handled without using good operating practices and taking reasonable precautions to prevent the spillage, escape or emission of organic compounds, solvents or mixtures. Such precautions shall include, but are not limited to:

1. Use of caution to prevent spillage or leakage when filling tanks, trucks or trailers.

2. Use of caution when filling automobile tanks to prevent spillage.

(c) Disposal of VOC wastes.

1. Effective August 1, 1979, no person shall cause, allow, or permit the disposal of more than 5.7 liters (1.5 gallons) of any liquid VOC waste, or of any liquid, semisolid or solid waste materials containing more than 5.7 liters (1.5 gallons) of any VOC, in any one day from a facility in a manner that would permit their evaporation into the ambient air during the ozone season. This includes, but is not limited to, the disposal of VOCs which must be removed from VOC control devices as so to maintain the control devices at their required operating efficiency.

2. Disposal during the ozone season shall be by methods approved by the department, such as incineration, recovery for reuse, or transfer in closed containers to an acceptable disposal facility, such that the quantity of VOCs which evaporates into the ambient air does not exceed 15% (by weight) or 5.7 liters (1.5 gallons) in any one day, whichever is larger.

**Federal Citation Number:**
**154.13(11)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Organic Compound Emissions
*Subheading:* Other Direct Sources
*Item Subpart:*
*Federal Effective Date:* 07/21/82

*State SIP Citation#:* 154.13(11)
*State Effective Date:*

**Regulatory Text**
RESERVED

(11) OTHER DIRECT SOURCES.

(a) Process lines emitting organic compounds.

1. Applicability.

a. This paragraph applies to all process lines which emit organic compounds, solvents or mixtures, with the following exceptions:

1) Process lines outside the Southeast Wisconsin Intrastate AQCR on which construction or modification commenced on or before April 1, 1972.

2) Organic compound-water separation systems that process 757 liters (200 gallons) per day or less.

3) Enclosed paint spraying operations from which emissions are never greater than 13.6 kilograms (30 pounds) in any day and never greater than 2.8 kilograms (6 pounds) in any hour.

4) All other process lines from which organic compound emissions are never greater than 6.8 kilograms (15 pounds) in any day and never greater than 1.4 kilograms (3 pounds) in any hour.

b. Where process lines are subject to emission limitations listed elsewhere in this section, the requirements of this paragraph shall apply in accord with the provisions of sub. (12)(g)2.

2. Emission limitations. Process lines to which this paragraph applies shall meet the following emission limitations:

a. Process lines on which construction or modification commenced before August 1, 1979 shall control emissions of photochemically reactive organic compounds by 85%.

b. Process lines on which construction or modification commenced on or after August 1, 1979 but before [effective date] shall control emissions of all organic compounds by 85% or, where a provision elsewhere in this section also applies, meet the requirement which results in emission of the smallest quantity on VOCs.

c. Process lines on which construction or modification commenced after [effective date], and which are not subject to emission limitations listed elsewhere in this section shall:

1) Control organic compound emission by at least 85%, or

2) Where 85% control has been demonstrated to be technologically infeasible for a specific process line, control organic compound emissions by use of the latest available control techniques and operating practices demonstrating best current technology, as approved by the department.

3. Election surface coating and printing processes subject to the requirements of this subsection may instead elect, with the approval of the department, to meet the emission limitations of sub. (4), notwithstanding subs. (4)(a)1., 2., 3., or 4. and (12), provided that:

a. The process line meets the specific applicability requirements of sub. (4)(c), (d), (e), (f), (g), (h), (i), (j), (k), (l), or (m), and

b. The owner or operator submits a written request to the department. Written requests under this subdivision shall include, in the case of sources constructed prior to August 1, 1979, a schedule for meeting the requirements of sub. (4).
(b) RESERVED.
(b) RESERVED.

**Federal Citation Number:**
**154.13(7)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Organic Compound Emissions
*Subheading:* Petroleum Refinery Sources
*Item Subpart:*
*Federal Effective Date:* 07/21/82

*State SIP Citation#:* 154.13(7)
*State Effective Date:*

**Regulatory Text**
(7) PETROLEUM REFINERY SOURCES

(a) Vacuum producing systems.

1. Applicability. Effective August 1, 1979, this paragraph applies, subject to the provisions of sub. (12), to vacuum producing systems at petroleum refining sources.

2. Requirements. The owner or operator of any vacuum producing systems at a petroleum refinery shall not permit the emission of any noncondensible VOC, from the condensers or accumulators of the system. The control required by this subdivision shall be achieved by:

a. Piping the noncondensible vapors to an operating firebox or incinerator; or

b. Compressing the vapors and adding them to the refinery fuel gas.

(b) Wastewater separators.

1. Applicability. Effective August 1, 1979, this paragraph applies, subject to the provisions of sub. (12), to wastewater separators at petroleum refining sources.

2. Requirements. The owner or operator of any wastewater (oil-water) separators at a petroleum refinery shall:

a. Provide covers and seals approved by the department on all separators and forebays; and

b. Equip all openings in covers, separators, and forebays with lids or seals such that the lids or seals are in the closed position at all times except when in actual use.

(c) Process unit turnarounds.

1. Applicability. Effective August 1, 1979, this paragraph applies to process unit turnarounds at petroleum refining sources.

2. Requirements. Notwithstanding sub. (12), before November 1, 1979 the owner or operator of a petroleum refinery shall develop and submit to the department for approval a detailed procedure for minimizing VOC emissions during process turnaround. As a minimum, the procedure shall provide for:

a. Depressurization venting of the process unit or vessel to a flare, firebox or vapor recovery system which prevents release to the ambient air of at least 90% by weight of the VOC vented; and

b. No emission of VOCs from a process unit or vessel until its internal pressure is 136 kPa (19.7 psia) or less; and

c. Recordkeeping of the following items during the ozone season:

1) Every date that each process unit or vessel is shut down; and

2) The approximate total quantity of VOCs emitted and the duration of the emission.

(d) Fugitive emission sources.

1. Applicability. Effective [effective date], this paragraph applies to specific fugitive emissions sources at petroleum refineries.

2. Valve requirements. The owner or operator of a petroleum refinery shall not:

a. Install a valve at the end of a pipe or line containing VOCs unless:

1) The pipe or line is sealed with a second valve, a blind flange, a plug, or a cap; or

2) The valve is a safety pressure relief valve.

b. Operate a pipeline valve or pressure relief valve in gaseous service unless it is visible marked.

3. Monitoring. The owner or operator of a petroleum refinery shall:

a. Notwithstanding sub. (12), before February 1, 1981, develop and submit to the department for approval a monitoring schedule for fugitive emission sources. At a minimum, the schedule shall provide for:

1) Yearly monitoring of all pump seals, pipeline valves in liquid service, and process drains;

2) Quarterly monitoring of all compressor seals, pipeline valves in gaseous service, and pressure relief valves in gaseous service; and

3) Routine visual inspection of all pump seals on a weekly basis.

b. Provide for the following actions to be performed immediately under the following circumstances:

1) Monitoring of any pump seals from which liquids are observed dripping;

2) Monitoring, subsequent to repair, of any component that had been found leaking; and

3) Visual inspection of the seating of any pressure relief valve after it has vented to the atmosphere.

c. Be exempt from the monitoring requirements of subd. 3.a. and b. for:

1) A pressure relief device connected to an operating flare header, or vapor recovery device,

2) Inaccessible valves,

3) Storage tank valves, and

4) Valves not externally regulated.

d. Upon detection of a leaking component which is producing a VOC concentration in excess of 10,000 ppm at any point accessible to the monitoring device:

1) Affix a weatherproof and readily visible tag bearing an identification number and the date the leak is detected to the leaking component;

2) Include the leaking component on a written list of scheduled repairs within 24 hours;

3) Repair and retest the component within 15 days when this is possible without shutting down operations; and

4) Identify all leaking components which cannot be repaired until the unit is shut down for turnaround.

4. Reporting. Beginning June 15, 1981, submit quarterly reports to the department containing the following:

a. A statement attesting to performance of the monitoring program as approved under subd. 3.a.;

b. The number of each type of components inspected and the total number of components found leaking;

c. Lists of all leaking components awaiting unit turnaround;

d. Lists of any additional leaking components detected but not repaired within 15 days;

e. Status of repair operations of leaking components.

5. Recordkeeping. Maintain a leaking component monitoring log, for a period of 3 years from the recording date, containing as a minimum:

a. The name of the process unit where the component is located;

b. The type of component (e.g., valve, seal);

c. The composition of the stream on which the component is located;

d. The tag number of the component;

e. The date on which a leaking component is discovered;

f. The date on which a leaking component is repaired;

g. The date and instrument reading of the recheck procedure after a leaking component is repaired;

h. A record of the calibration of the monitoring instrument;

i. A list of leaks that cannot be repaired until turnaround; and

j. The total number of components checked in the last quarter and the total number of components found leaking.

**Federal Citation Number:**
**154.13(8)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Organic Compound Emissions
*Subheading:* Rubber Products Manufacture
*Item Subpart:* No Item Subpart
*Federal Effective Date:* 07/21/82

*State SIP Citation#:* 154.13(8)
*State Effective Date:*

**Regulatory Text**
(8) RUBBER PRODUCTS MANUFACTURE.

(a) Pneumatic rubber tire manufacture.

1. Applicability.

a. Effective [effective date], this paragraph applies, subject to the provisions of sub. (12) to all pneumatic rubber tire manufacturing facilities involved in undertread cementing, tread end cementing, bead dipping, or green tire spraying operations.

b. This paragraph does not apply to the production of specialty tires for antique or other vehicles when produced on an irregular basis or with short production runs. This exemption applies only to tires produced on equipment separate from normal production lines for passenger type tires.

c. The requirements of subd. 2. do not apply provided the combined total VOC emissions from all undertread cementing, tread end cementing, bead dipping and green tire spraying operations are less than or equal to 57 grams per tire produced and the emission rates are determined and certified under subd. 3. by August 31, 1981.

2. Emission control requirements. The owner or operator of a pneumatic rubber tire manufacturing facility shall:

a. For all undertread cementing, tread end cementing and bead dipping operations install and operate:

1) A carbon adsorption system which reduces the VOC emissions from the capture system by at least 90% by weight:

2) An incineration or catalytic oxidation system which oxidizes at least 90% of the nonmethane VOCs (measured as total combustible carbon) which enter the incineration or oxidation unit, to non-organic compounds;

3) An alternate VOC emission reduction system demonstrated to have at least a 90% reduction efficiency measured across the control system, as approved by the department.

b. For green tire spraying operations, implement one of following control strategies:

1) Utilize water-based mold release compound sprays with a volatile fraction containing, at a minimum, 90% water;

2) Install and operate a carbon adsorption system which reduces the VOC emission from the capture system by at least 90% by weight;

3) Install and operate an incineration or catalytic oxidation system which oxidizes at least 90% of the nonmethane VOCs (VOC measured as total combustible carbon) which enter the incinerator or oxidation unit to nonorganic compounds; or

4) Install and operate an alternate VOCs emission reduction system demonstrated to have at least a 90% reduction efficiency, measured across the control system, as approved by the department.

c. For any control device required by this subsection, install and operate a capture system, as approved by the department, which is designed to provide maximum reasonable capture and transfer of VOCs to the control device. Maximum reasonable capture and transfer shall be in accord with guidance provided by:

1) Industrial Ventilation: A Manual of Recommended Practices, 14th ed., and

2) Recommended Industrial Ventilation Guidelines.

Note: See Industrial Ventilation: A Manual of Recommended Practices, 14th ed., Committee on Industrial Ventilation, American Conference of Governmental Hygienists, 1976, (available from: Governmental Industrial Hygienists, P.O. Box 16153, Lansing, Michigan 48901) and U.S. Department of Health, Education and Welfare, National Institute of Occupational Safety and Health, Recommended Industrial Ventilation Guidelines, Springfield, VA: National Technical Information Service, PB 266 227, 1976. Copies of these documents are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin and may be obtained for personal use from the respective agencies listed above.

3. Emissions testing schedule. The owner or operator of a pneumatic rubber tire manufacturing facility shall not exceed the following dead-lines:

a. Submit, by May 1, 1981, a plan for tests to measure VOC emissions from undertread cementing and tread end cementing operations. Any capture systems used for such tests shall be designed in accord with guidelines presented in subd. 2.c.

b. Commence construction of systems needed in order to measure emissions by June 15, 1981.

c. Complete construction of equipment needed for testing and begin testing by July 1, 1981.

d. Complete testing by July 31, 1981.

e. Submit to the Department documentation, including test results, of the actual combined total VOC emissions from all undertread cementing, tread end cementing, bead dipping and green tire spraying operations per tire produced by August 31, 1981.

**Federal Citation Number:**
**154.13(6)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Organic Compound Emissions
*Subheading:* Solvent Cleaning Operations
*Item Subpart:*
*Federal Effective Date:* 07/21/82

*State SIP Citation#:* 154.13(6)
*State Effective Date:*

**Regulatory Text**
(6) SOLVENT CLEANING OPERATIONS.

(a) Solvent metal cleaning.

1. Applicability.

a. Effective August 1, 1979, this paragraph applies, with a final compliance deadline of May 1, 1980, or as provided by a compliance schedule issued or approved pursuant sub. (12) (e), to cold cleaning, open top vapor degreasing and conveyorized degreasing operations.

b. This paragraph does not apply to individual cold cleaners to which not more than 5.7 liters (1.5 gallons) of solvent is added per day or to individual open top vapor or conveyorized degreasers whose emissions of VOCs are not more than 6.8 kilograms (15 pounds) in any one day, nor more than 1.4 kilograms (3 pounds) in any one hour, provided:

1) The degreaser is located outside the counties of Brown, Calumet, Dane, Dodge, Fon du Lac, Jefferson, Kenosha, Manitowoc, Milwaukee, Outagamie, Ozaukee, Racine, Rock, Sheboygan, Walworth, Washington, Waukesha and Winnebago; and

2) The emission rates from open top vapor and conveyorized degreasers are determined and certified before October 1, 1979 in a manner approved by the department.

c. This paragraph also does not apply to sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance where:

1) The operation of the source is not an integral part of the production process; and

2) The emissions from the source do not exceed 363 kilograms (800 pounds) in any calendar month; and

3) The exemption is approved in writing by the department.

d. The requirements of subd. 2.b through g. do not apply to cold cleaners with an open area smaller than 0.1 square meter (1.1 square feet).

e. The requirements of subd. 3.c do not apply to open top vapor degreasers with an open area smaller than 1.0 square meter (10.8 square feet).

f. The requirements of subd. 4.c do not apply to conveyorized degreasers with an air-vapor interface smaller than 2.0 square meters (21.6 square feet).

2. Cold cleaners. Except as provided under subd. 1.b, c., and d., the owner or operator of a cold cleaning facility shall:

a. Equip the cleaner with a cover; and

b. Design the cover so that it can be easily operated with one hand if:

1) The solvent volatility is greater than 2 kPa (0.3 psia) measured at 38 degrees C (100 degrees F); or

2) The solvent is agitated; or

3) The solvent is heated; and

c. Equip the cleaner with a facility for draining cleaned parts, and the drainage facility shall be constructed internally so that parts are enclosed under the cover while draining if the solvent volatility is greater than 4.3 kPa (0.6 psia) measured at 38 degrees C (100 degrees F), except that the drainage facility may be external for applications where an internal type cannot fit into the cleaning system; and

d. Install one of the following control devices if the solvent volatility is greater than 4.3 kPa (0.6 psia) measured at 38 degrees C (100 degrees F), or if the solvent is heated above 49 degrees C (120 degrees F):

1) Freeboard that gives a freeboard ration greater than or equal to 0.7; or

2) Water cover (solvent must be insoluble in and heavier than water); or

3) Other systems of equivalent control, such as refrigerated chiller or carbon adsorption, approved by the department; and

e. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure which does not cause extensive splashing; and

f. Provide a permanent, conspicuous label, summarizing the operating requirements; and

g. Provide supervision or instruction adequate to ensure that the operation is conducted in accord with the following:

1) Close the cover whenever parts are not being handled in the cleaner; and

2) Drain the cleaned parts for at least 15 seconds or until dripping ceases; and

3) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another person in such a way as to cause greater than 15% of the waste solvent (by weight) to evaporate into the ambient air during the ozone season, sub. (1) (c) notwithstanding; and

4) Repair solvent leaks immediately, or shut down the degreaser until the leaks are repaired.

3. Open top vapor degreasers. Except as provided under subd. 1.b, c. and e., the owner or operator of an open top vapor degreaser shall:

a. Equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone; and

b. Provide the following safety switches:

1) A condenser flow switch or other switching system which shuts off the sump heat if the condenser coolant is either not circulating or too warm; and

2) A thermostatically activated control switch which shuts off the sump heat when the vapor level rises above the upper boundary of the normal range; and

3) A spray safety switch which shuts off the spray pump if the vapor level does not stay within the normal range; and

c. Install one of the following control devices:

1) A freeboard ratio equal to or greater than 0.75, with a powered or mechanically assisted cover if the degreaser opening is greater than 1.0 square meter (10.8 square feet); or

2) Refrigerated chiller; or

3) Enclosed design (cover or door opens only when the dry part is actually entering or exiting the degreaser); or

4) Ventilation greater than or equal to 15 cubic meters per minute per square meter (50 cubic feet per minute per square foot) of air-vapor area (when cover is open), all passing through a carbon adsorption system which exhausts less than 25 parts per million of solvent averaged over one complete adsorption cycle; or

5) A control system demonstrated to have control efficiency equivalent to or greater than any of 1) through 4) above and approved by the department; and

d. Not position ventilation fans so as to disturb the degreaser's vapor zone, nor provide exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreaser open area during the ozone season, unless necessary to meet OSHA requirements; and

e. Keep the cover closed at all times except when processing workloads through the degreaser; and

f. Always spray below the vapor level; and,

g. Minimize solvent carryout by:

1) Racking parts to allow complete drainage; and

2) Moving parts in and out of the degreaser at less than 3.3 meters per minute (11 feet per minute); and

3) Holding the parts in the vapor zone at least 30 seconds or until condensation ceases; and

4) Tipping out any pools of solvent on the cleaned parts before removal from the vapor zone; and

5) Allowing parts to dry within the degreaser for at least 15 seconds or until visually dry; and

h. Not degrease porous or absorbent materials, such as cloth, leather, wood or rope; and

i. Move parts out of the degreaser at less than 1.5 meters per minute (4.9 feet per minute) if the workload occupies more than 50% of the degreaser's open top area; and

j. Except where a load cannot be divided, avoid loading the degreaser to the point where the vapor level would drop more than 10 centimeters (4 inches) when the workload is placed in the vapor zone; and

k. Not operate the degreaser so as to allow water to be visually detectable in solvent exiting the water separator; and

l. Follow the requirements of subd. 2.g.3) and 4); and

m. Provide a permanent, conspicuous label, summarizing the operating procedures of subpars. e. through 1., and provide supervision or instruction adequate to ensure that the procedures are followed.

4. Conveyorized degreasers. Except as provided under subd. 1.b., c. and f., the owner or operator of a conveyorized degreaser shall:

a. Minimize entrance and exit openings during operations so that no opening dimension exceeds the smallest physically possible by more than 20 centimeters (8 inches) or by more than 20% of the opening dimension, whichever is smaller; and

b. Provide the following safety switches:

1) A condenser flow switch or other switching system which shuts off the sump heat if the condenser coolant is either not circulating or too warm; and

2) A thermostatically activated control switch which shuts off the sump heat when the vapor level rises above the upper boundary of the normal range; and

3) A spray safety switch which shuts off the spray pump or the conveyor if the vapor level does not stay within the normal range; and

c. Install one of the following control devices:

1) Refrigerated chiller; or

2) Carbon adsorption system, with ventilation greater than or equal to 15 cubic meters per minute per square meter (50 cubic feet per minute per square foot) of air-vapor area (when downtime covers are open), and exhausting less than 25 parts per million of solvent by volume averaged over a complete adsorption cycle; or

3) A system, demonstrated to have a control efficiency equivalent to or greater than 1) or 2), and approved by the department; and

d. Provide downtime covers for closing off the entrance and exit during shutdown hours; and

e. Place downtime covers over entrances and exits of conveyorized degreasers immediately after the conveyors and exhausts are shut down and not remove them until just before start-up; and

f. Minimize carryout emissions by:

1) Using a drying tunnel, rotating (tumbling) basket or their equivalent; and

2) Racking parts for best drainage; and

3) Maintaining the vertical conveyor speed at less than 3.3 meters per minute (11 feet per minute); and

g. Follow the requirements of subds. 2.g 3) and 4) and 3.d. and k.

(b) Perchlorethylene dry cleaning.

1. Applicability.

a. Effective (effective date), this paragraph applies, subject to the provisions of sub. (12), to all dry cleaning facilities in which perchloroethylene solvent is used.

b. The requirements of subd. 2.a and b. do not apply to perchloroethylene dry cleaning facilities which provide satisfactory documentation to the department showing that an adsorber cannot be accommodated because of inadequate space or because insufficient steam capacity is available to desorb adsorbers.

2. Requirement. Except as provided under subd. 1., the owner or operator of a perchloroethylene dry cleaning facility shall:

a. Vent the entire dryer exhaust through:

1) A carbon adsorption system which shall emit no more than 100 ppm of VOC, before dilution; or

2) An alternative VOC emission control system demonstrated to achieve an equivalent VOC emission reduction as approved by the department.

b. Maintain the facility so as to prevent leakage of organic solvent from any components in the system and repair any leaks immediately;

c. Cook or treat all diatomaceous earth filters so that the residue contains 25 kilograms or less of VOCs per 100 kilograms of wet waste material;

d. Reduce the VOC content of all solvent still waste to 60 kilograms or less per 100 kilograms of wet waste material;

e. Drain all filtration cartridges, in the filter housing or other sealed container, for at least 24 hours before discarding the cartridges;

f. If transferring cartridges to another sealed container, make such transfer without permitting any solvent to be spilled; and

g. When possible, dry all drained cartridges without emitting VOCs to the atmosphere.

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**154.13(2)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Organic Compound Emissions
*Subheading:* Storage of Organic Compounds
*Item Subpart:*
*Federal Effective Date:* 07/21/82

*State SIP Citation#:* 154.13(2)
*State Effective Date:*

**Regulatory Text**
(2) STORAGE OF ORGANIC COMPOUNDS.

(a) Storage of petroleum liquids.

1. Applicability.

a. The storage, monitoring and maintenance requirements of subds. 2., 3. and 4. apply to all storage vessels for petroleum liquids of more than 151,412 liter (40,000 gallon) capacity on which construction or modification is commenced after July 1, 1975, with the exception of:

1) Storage vessels being used for number 2 through number 6 fuel oils as specified in ASTM-D-396-73, gas turbine fuel oils numbers 2-GT through 4-GT as specified in ASTM-D-2880-71, or diesel fuel oils numbers 2-D and 4-D as specified in ASTM-D975-73.

Note: See American Society for Testing and Materials, Part 17, 1973. Copies of applicable standards from Part 17; Petroleum Products - Fuels, Solvents, Burner Fuel Oils, Lubricating Oils, Cutting Oils, Lubricating Greases, Hydraulic Fluids; are available for inspection at the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin, and may be obtained for personal use from ASTM, 1916 Race Street, Philadelphia, PA 19103.

2) Storage vessels for the crude petroleum or condensate stored, processed or treated at a drilling and production facility outside a standard metropolitan statistical area prior to custody transfer.

3) Pressure vessels which are designed to operate at pressures in excess of 104 kPa (15 psig) without emissions except under emergency conditions.

4) Subsurface caverns or porous rock reservoirs.

5) Underground tanks if the total volume of petroleum liquids added to and taken from a tank annually does not exceed twice the volume of the tank.

b. Effective July 1, 1980, the maintenance requirements of subd. apply to all storage vessels for petroleum liquids of more than 7,571 liter (2,000 gallon) capacity.

c. Effective August 1, 1979, subd. 5. applies, subject to the provisions of sub. (12), to all fixed roof storage vessels with capacities greater than 151,412 liters (40,000 gallons) with the exception of those having capacities less than 1,600,000 liters (416,000 gallons) used to store crude petroleum and condensate prior to custody transfer.

d. Effective [effective date] subd. 6 applies, subject to the provisions of sub. (12) (d) or (e), to all storage vessels equipped with external floating roofs having capacities greater than 151,412 liters (40,000 gallons) with the exception of:

1) Storage vessels having capacities less than 1,500,000 liters (396,270 gallons) used to store crude petroleum and condensate prior to custody transfer.

2) Storage vessels used to store waxy, heavy pour crude petroleum.

3) Storage vessels used solely for petroleum liquids with a true vapor pressure of less than 10.5 kPa (1.52 psia).

4) Storage vessels used solely for petroleum liquids with a true vapor pressure of less than 27.6 kPa (4.0 psia), and which are of welded construction, and presently possess a metallic-type shoe seal, a liquid-mounted foam seal, a liquid-mounted liquid filled type seal, or equally effective alternative control, approved by the department.

5) Storage vessels of welded construction, equipped with metallic-type shoe primary seal which has a secondary seal from the top of the shoe seal to the tank wall.

e. Effective [effective date], subd. 7 applies to all storage vessels with capacities greater than 151,412 liters (40,000 gallons) equipped with external floating roofs without secondary seals or their approved equivalent.

2. Storage requirements. The owner or operator of any storage vessel to which this subdivision applies shall store petroleum liquids as follows:

a. If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than 10.5 kPa (1.52 psia) but not greater than 77 kPa (11.1 psia), the storage vessel shall be equipped with a floating roof, a vapor recovery system or their equivalents.

b. If the true vapor pressure of the petroleum liquid, as stored, is greater than 77 kPa (11.1 psia), the storage vessel shall be equipped with a vapor recovery system or its equivalent.

3. Monitoring requirements. a. The owner or operator of any storage vessel to which this subdivision applies shall, for each such storage vessel, maintain a file of each type of petroleum liquid stored, the typical Reid vapor pressure of each type of petroleum liquid stored and the dates of storage. Dates on which the storage vessel is empty shall be indicated.

b. The owner or operator of any storage vessel to which this subdivision applies shall, for each such storage vessel, determine and record the average monthly storage temperature and true vapor pressure of the petroleum liquid stored at such temperature if:

1) The petroleum liquid has a true vapor pressure, as stored, greater than 3.5 kPa (0.51 psia) but less than 10.5 kPa (1.52 psia) and is stored in a vessel other than one equipped with a floating roof, a vapor recovery system or their equivalent; or

2) The petroleum liquid has a true vapor pressure, as stored, greater than 63 kPa (9.1 psia) and is stored in a storage vessel other than one equipped with a vapor recovery system or its equivalent.

c. The true vapor pressure shall be determined by the procedures in API Bulletin 2517. This procedure is dependent upon determination of the storage temperature and the Reid vapor pressure, which requires sampling of the petroleum liquids in the storage vessels. Unless the department requires in specific cases that the stored petroleum liquid be sampled, the true vapor pressure may be determined by using the average monthly storage temperature and the typical Reid vapor pressure. For those liquids for which certified specifications limiting the Reid vapor pressure exist, that Reid vapor pressure may be used. For other liquids, supporting analytical data shall be made available on request to the department when typical Reid vapor pressure is used.

Note: See American Petroleum Institute, Bulletin 2517 Evaporation Loss from Floating Roof Tanks, February, 1962. Copies of Evaporation Loss from Floating Roof Tanks are available for inspection in the offices of the department of natural resources, secretary of state and revisor of statutes, Madison, Wisconsin, and may be obtained for personal use from the American Petroleum Institute, 2101 L. Street, N.W., Washington, D.C. 200061.

4. Maintenance requirements. No person shall place, hold or store in a storage vessel any petroleum liquid which has a true vapor pressure as stored greater than 10.5 kPa (1.52 psia) unless:

a. Any tank surface exposed to the rays of the sun is painted and maintained white so as to prevent excessive temperature and vapor pressure increases; and

b. The seals of any floating roof are maintained so as to minimize emissions; and

c. All gauging and sampling devices are vapor-tight except when gauging or sampling is taking place.

5. Storage in vessels with fixed roofs. No owner or operator of a fixed roof storage vessel to which this subdivision applies shall permit such storage vessel to be used for storing any petroleum liquid which has a true vapor pressure as stored greater than 10.5 kPa (1.52 pais) unless:

a. The vessel has been retrofitted with an internal floating roof equipped with a closure seal, or seals, to close the space between the roof edge and tank wall; or

b. The vessel has been retrofitted with equally effective alternative control, approved by the department; and

c. The vessel is maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials; and

d. All openings, except stub drains, are equipped with covers, lids, or seals such that:

1) The cover, lid, or seal is in the closed position at all times except when in actual use; and

2) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and

3) Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting; and

e. Routine inspections are conducted through roof hatches at monthly intervals during the ozone season; and

f. A complete inspection of cover and seal is conducted whenever the tank is emptied, though not more frequently than at 6 month intervals nor less frequently than at 8 year intervals; and

g. Records are maintained and retained for a minimum of 2 years that shall include:

1) The results of inspections conducted under subpars. e. and f. and

2) The information required under subd. 3.a. and b. (intro).

6. Storage in vessels with external floating roofs. No owner or operator of a storage vessel equipped with an external floating roof to which this subdivision applies shall permit such storage vessel to be used for storing any petroleum liquid unless:

a. The vessel has been fitted with a continuous secondary seal extending from the floating roof to the tank wall, or the vessel has been fitted with an equally effective alternative control, approved by the department; and

b. The vessel is maintained such that all seal closure devices meet the following requirements:

1) There are no visible holes, tears, or other openings in the seal or any seal fabric or material;

2) The seal or seals are intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall; and

3) For vapor mounted seals, the accumulated area of gaps exceeding 0.32 cm (1/8 in.) in width between the secondary seal and the tank wall shall not exceed 21.2 cm2 per meter (1.00 in2 per foot) of tank diameter; and

c. All openings in the external floating roof, except for automatic bleer vents, rim space vents, and leg sleeves, are:

1) Equipped with covers, seals or lids kept in the closed position except when in actual use; and

2) Equipped with projections into the tank which remain below the liquid surface at all times; and

d. Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and

e. Rim vents are set to open only when the roof is being floated off the leg supports or at the manufacturer's recommended setting; and

f. Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least 90% of the area of the opening; and

g. Routine visual inspections are conducted of all seals and seal closure devices at monthly intervals during the ozone season; and

h. The secondary seal gap of vapor-mounted seals is measured annually, in a manner approved by the department; and

i. Records are maintained and retained for a minimum of 2 years that shall include:

1) The results of inspections conducted under subpars. g. and h.; and

2) The information required under subd. 3.1 and b. (intro)

7. Additional monitoring. The owner or operator of a petroleum liquid storage vessel with an external floating roof not covered under subd. 6. but containing a petroleum liquid with a true vapor pressure greater than 7.0 kPa (1.0 psia), shall maintain and retain for at least 2 years records of the average monthly storage temperature, the type of liquid, throughout quantities and the maximum true vapor pressure for all petroleum liquids with a true vapor pressure greater than 7.0 kPa (1.0 psia).

(b) Storage of VOCs at pharmaceutical manufacturing facilities.

1. Applicability. Effective (effective date), subd. 2. applies, subject to the provisions of sub. (12), to all storage vessels for VOCs of more than 3,785 liter (1,000 gallon) capacity at synthetic pharmaceutical manufacturing facilities.

2. Storage requirements. The owner or operator of any storage vessel shall install pressure-vacuum conservation vents set at +-0.2 kPa, or an equally effective control device approved by the department, on all storage vessels that store VOCs with vapor pressures in excess of 10.5 kPa (1.52 psia) at 21 degrees C (70 degrees F).

(c) Storage of any organic compound.

1. Applicability.

a. Subd. 2. applies to all storage tanks for organic compounds having capacities greater than 151,412 liters (40,000 gallons) in the Southeastern Wisconsin Intrastate AQCR, and to all such storage tanks throughout the state on which construction or modification commenced after April 1, 1972, with the following exceptions:

1) Tanks storing organic compounds that are not photochemically reactive on which construction or modificaiton commenced before August 1, 1979.

2) Tanks used exclusively for storing organic compounds exempted under sub. (13) (a).

b. Where a provision of sub. (2) (a) also applies, the more stringent requirement shall be met.

2. Storage requirements. When storing organic compounds, solvents or mixtures having a vapor pressure greater than 10.5 kPa

(1.52 psia) at 21 degrees C (70 degrees F), floating roofs, vapor condensation systems, vapor holding tanks, or equally effective alternative control methods approved by the department shall be used.

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**154.13(4)(a)**

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**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
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**Regulatory Text**

(4) SURFACE COATING AND PRINTING PROCESSES.

(a) General applicability. This subsection applies to any facility which contains one or more of the surface coating or printing process lines described in this subsection with the following exceptions:

1. Surface coating process lines whose emissions of VOCs are never greater than 6.8 kilograms (15 pounds) in any one day, and never greater than 1.4 kilograms (3 pounds) in any one hour.

2. Surface coating facilities covered under par. (m) which have total emissions of VOCs from all surface coating process lines, with all emission control equipment inoperative, of less than or equal to 10 tons per year.

3. Surface coating facilities covered under pars. (c) through (k) and par. (m) which are located outside the counties of Brown, Calumet, Dane, Dodge, Fond du Lac, Jefferson, Kenosha, Manitowoc, Milwaukee, Outagamie, Ozaukee, Racine, Rock, Sheboygan, Walworth, Washington, Waukesha, and Winnebago and which have total emissions of VOCs from the facility, with all emission control equipment inoperative, of less than or equal to 100 tons per year.

4. Printing facilities covered under par. (1) which have total emissions of VOCs from the facility, with all emission control equipment inoperative, of less than or equal to 100 tons per year.

5. Surface coating process sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance where:

a. The operation of the source is not an integral part of the production process; and

b. The emissions from the source do not exceed 363 kilograms (800 pounds) in any calendar month; and

c. The exemption is approved in writing by the department.

(b) Methods of compliance.

1. General methods. The surface coating emission limitations shall be achieved by:

a. The application of low solvent content coating technology; or

b. A vapor recovery system which recovers the solvent for reuse; or

c. Incineration or catalytic oxidation, provided that 90% of the nonmethane VOCs (VOC measured as total combustible carbon) which enter the incinerator or oxidation unit are oxidized to non-organic compounds; or

d. An equivalent system or approach demonstrated to reliably control emissions to a level at or below the applicable emission limit and approved by the department.

2. High transfer efficiency coating application. a. Surface coating operations covered under pars. (g), (h), (i) and (m) have the added option of achieving compliance with the emission limitations through the use of a high transfer efficiency coating application system, either when used alone or in conjunction with low solvent content coating technology.

b. Compliance under the option provided in this subdivision must be demonstrated to the satisfaction of the department. This requires that:

1) The design, operation, and efficiency of the application system must be certified in writing by the owner or operator, and

2) The solvent usage per coated part for application system must be less than or equal to the solvent usage per coated part at the applicable emission limitation using baseline transfer efficiency.

(c) Can coating.

1. Applicability. Effective August 1, 1979, this paragraph applies, subject to the provisions of sub. (12), to the coating applicator and oven of sheet, can or end coating lines involved in sheet basecoat (exterior and interior) and overvarnish; 2-piece can exterior (basecoat and overvarnish); 2- and 3-piece can interior body spray, 2-piece can exterior end (spray or roll coat); 3-piece can

side-seam spray and end sealing compound operations. This paragraph does not apply to sources exempted under par. (a).

2. Emission limitations. No owner or operator of a can coating line shall cause, allow or permit the emission of any VOCs in excess of:

a. 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water, delivered to each coating applicator from sheet basecoat (exterior and interior) and overvarnish or 2-piece can exterior (basecoat and overvarnish) operations,

b. 0.51 kilograms per liter of coating (4.2 pounds per gallon), excluding water, delivered to each coating applicator from 2- and 3-piece can interior body spray and 2-piece can exterior end (spray or roll coat) operations,

c. 0.66 kilograms per liter of coating (5.5 pounds per gallon), excluding water, delivered to each coating applicator from 3-piece can side-seam spray operations, or

d. 0.44 kilograms per liter of coating (3.7 pounds per gallon). excluding water, delivered to each coating applicator from end sealing compound operations.

(d) Coil coating

1. Applicability. Effective August 1, 1979, this paragraph applies, subject to the provisions of sub. (12), to the coating applicator, oven and quench area of coil coating lines involved in prime and topcoat or single coat operations. This paragraph does not apply to sources exempted under par. (a).

2. Emission limitations. No owner or operator of a coil coating line shall cause, allow or permit the emission of any VOCs in excess of 0.31 kilograms per liter of coating (2.6 pounds per gallon), excluding water, delivered to each coating applicator from prime and topcoat or single coat operations.

(e) Paper coating.

1. Applicability. Effective August 1, 1979, this paragraph applies, as subject to the provisions of sub. (12), to the coating applicator, including but not limited to blade, air knife or roll coaters, and drying ovens of paper coating lines. This paragraph does not apply to any piece of equipment on which a nonuniform coating is applied to a substrate, as in printing, or to sources exempted under par. (a).

2. Emission limitations. No owner or operator of a paper coating line shall cause, allow or permit the emission of any VOCs in excess of 0.35 kilograms per liter of coating (2.9 pounds per gallon), excluding water, delivered to each coating applicator from a paper coating line.

(f) Fabric and vinyl coating.

1. Applicability. Effective August 1, 1979, this paragraph applies, subject to the provision of sub. (12), to the coating applicators, including but not limited to blade, roll, rotogravure or dip coaters, and drying ovens of fabric and vinyl coating lines. This paragraph does not apply to sources exempted under par. (a).

2. Emission limitations. No owner or operator of a fabric coating line or a vinyl coating line shall cause, allow or permit the emission of any VOCs in excess of:

a. 0.35 kilograms per liter of coating (2.9 pounds per gallon), excluding water, delivered to each coating applicator from a fabric coating line.

b. 0.45 kilograms per liter of coating (3.8 pounds per gallon), excluding water, delivered to each coating applicator from a vinyl coating line.

(g) Automobile and light-duty truck manufacturing.

1. Applicability. Effective August 1, 1979, this paragraph applies, subject to the provisions of sub. (12) (f), to the application areas, flashoff areas, and ovens of automobile and light-duty truck manufacturing plants involved in prime, topcoat and final repair coating of metallic front end and main body parts. This paragraph does not apply to the coating of wheels, trunk interiors, steering columns or nonmetallic parts; to sealers or nonpriming anti-rust coatings; or to sources exempted under par. (a).

2. Emission limitations - enamels. No owner or operator of an automobile surface coating line which, prior to January 1, 1979, used an enamel coating system, shall cause, allow or permit the emission of any VOCs in excess of:

a. After December 31, 1983, 0.14 kilograms per liter of coating (1.2 pounds per gallon), excluding water, from an electrodeposition prime coat or equivalent coating line.

b. After December 31, 1982, 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water, from a spray primer-surfacer coating line.

c. After December 31, 1982, and until December 31, 1985, 0.45 kilograms per liter of coating (3.7 pounds per gallon), excluding water, from a topcoat coating line.

d. After December 31, 1985, 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water, from a topcoat coating line.

e. After December 31, 1982, 0.58 kilograms per liter of coating (4.8 pounds per gallon), excluding water, from any final repair coating line.

3. Emission limitations - lacquers. No owner or operator of an automobile surface coating line which, prior to January 1, 1979, used a lacquer coating system, shall cause, allow or permit the emission of any VOCs in excess of:

a. After August 1, 1979, and until December 31, 1982, 0.27 kilograms per liter of coating (2.2 pounds per gallon), excluding water, from an electrodeposition prime coat coating line.

b. After December 31, 1982, 0.14 kilograms per liter of coating (1.2 pounds per gallon), excluding water, from electrodeposition prime coat coating line.

c. After December 31, 1980, and until December 31, 1986, 0.36 kilograms per liter of coating (3.0 pounds per gallon), excluding water, from a spray primer-surfacer coating line.

d. After December 31, 1986, 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water, from a spray primer-surfacer coating line.

e. After December 31, 1979, and until December 31, 1981, 0.70 kilograms per liter of coating (5.8 pounds per gallon), excluding water, from a topcoat coating line.

f. After December 31, 1981, and until December 31, 1986, 0.61 kilograms per liter of coating (5.0 pounds per gallon), excluding water, from a topcoat coating line.

g. After December 31, 1986, 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water, from a topcoat coating line.

h. After August 1, 1979, and until December 31, 1986, 0.79 kilograms per liter of coating (6.5 pounds per gallon), excluding water, from any final repair coating line.

i. After December 31, 1986, 0.58 kilograms per liter of coating (4.8 pounds per gallon), excluding water, from any final coating line.

4. Emission limitations - trucks. No owner or operator of a light-duty truck surface coating line shall cause, allow or permit the emission of any VOCs in excess of:

a. After January 1, 1981, and until December 31, 1982, 0.27 kilograms per liter of coating (2.2 pounds per gallon), excluding water, from an electrodeposition prime coat coating line.

b. After December 31, 1982, 0.14 kilograms per liter of coating (1.2 pounds per gallon), excluding water, from an electrodeposition prime coat coating line.

c. After December 31, 1980, and until December 30, 1987, 0.41 kilograms per liter of coating (3.4 pounds per gallon), excluding water, from a spray primer-surfacer coating line.

d. After December 31, 1987, 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water, from a spray primer-surfacer coating line.

e. After December 31, 1982, and until December 30, 1987, 0.44 kilograms per liter of coating (3.6 pounds per gallon), excluding water, from a topcoat coating line.

f. After December 30, 1987, 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water, from a topcoat coating line.

g. After December 31, 1982, 0.58 kilograms per liter of coating (4.8 pounds per gallon), excluding water, from any final repair coating line.

5. Emission rate averaging. Each emission limit in this paragraph may be interpreted as a weighted daily average, or as an instantaneous arithmetic average of the colors in use, whichever is specified in an approved compliance plan. The emission limits are referenced to water-borne coatings conventionally applied. Any coating line which achieves an equivalent emission rate per unit area coated shall be deemed in compliance.

(h) Furniture metal coating.

1. Applicability. Effective August 1, 1979, this paragraph applies, subject to the provisions of sub. (12), to the application areas, flashoff areas, and ovens of furniture metal coating lines involved in prime and topcoat or single coating operations. This paragraph does not apply to sources exempted under par. (a).

2. Emission limitations. No owner or operator of a furniture metal coating line shall cause, allow, or permit the emission of any VOCs in excess of 0.36 kilograms per liter of coating (3.0 pounds per gallon), excluding water, delivered to each coating applicator from prime and topcoat or single coat operations.

(i) Surface coating of large appliances.

1. Applicability. Effective August 1, 1979, this paragraph applies, subject to the provisions of sub. (12), to the application areas, flashoff areas, and ovens of large appliance coating lines involved in single, prime, or topcoating operations. This paragraph does not apply to:

a. Sources exempted under par. (a); or

b. The use of quick-drying lacquers for repair of scratches and nicks that occur during assembly, provided that the volume of coating does not exceed 0.95 liters (1 quart) in any one 8-hour period for any appliance coating line.

2. Emission limitations. No owner or operator of a large appliance coating line shall cause, allow, or permit the emission of any VOCs in excess of 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water, delivered to each coating applicator from single, prime, or topcoat coating operations.

(j) Magnet wire coating.

1. Applicability. Effective August 1, 1979, this paragraph applies, subject to the provisions of sub. (12), to the ovens of magnet wire coating operations. This paragraph does not apply to sources exempted under par. (a).

2. Emission limitation. No owner or operator of a magnet wire coating oven shall cause, allow or permit the emission of any VOCs in excess of 0.20 kilograms per liter of coating (1.7 pounds per gallon), excluding water, delivered to each coating applicator from magnet wire coating operations.

(k) Flat wood panel coating.

1. Applicability. Effective [effective date], this paragraph applies, subject to the provisions of sub. (12), to the coating lines of flat wood panel facilities involved in the surface coating of printed interior panels made of hardwood plywood and thin particleboard, natural finish hardwood plywood panels, or hardboard paneling with class II finishes. This paragraph does not apply to the manufacture of exterior siding, tileboard, or particleboard used as a furniture component; or to sources exempted under par. (a).

2. Emission limitations. No owner or operator of a flat wood panel coating line shall cause, allow, or permit the emission of any VOCs from a coating application system in excess of:

a. 2.9 kilograms per 100 square meters of coated finished product (6.0 pounds per 1,000 square feet) from printed interior panels, regardless of the number of coats applied;

b. 5.8 kilograms per 100 square meters of coated finished product (12.0 pounds per 1,000 square feet) from natural finish hardwood plywood panels, regardless of the number of coats applied; and

c. 4.8 kilograms per 100 square meters of coated finished product (10.0 pounds per 1,000 square feet) from class II finishes on hardboard panels, regardless of the number of coats applied.

(L) Graphic arts.

1. Applicability. Effective [effective date], this paragraph applies, subject to the provisions of sub. (12), to the printing lines of all packaging rotogravure, publication rotogravure, and flexographic printing facilities. This paragraph does not apply to sources exempted under par. (a).

2. Emission limitations. No owner or operator of a packaging rotogravure, publication rotogravure, or flexographic printing line shall operate, or cause, allow or permit the operation of the line unless:

a. The volatile fraction of ink, as it is applied to the substrate, contains 25% by volume or less of organic solvent and 75% by volume or more of water,

b. The ink, as it is applied to the substrate, less water, contains 60% by volume or more nonvolatile material, or

c. The owner or operator installs and operates:

1) A vapor recovery system which reduces the VOC emissions from the capture system by at least 90% by weight,

2) An incineration or catalytic oxidation system, provided that 90% of the nonmethane VOCs (VOC measured as total combustible carbon) which enter the incinerator or oxidation unit are oxidized to non-organic compounds, or

3) An alternative VOC emission reduction system demonstrated to have at least a 90% reduction efficiency, as measured across the control system, and approved by the department.

3. The design, operation and efficiency of any capture system used in conjunction with subd. 2.c. shall be certified in writing by the owner or operator and is subject to approval by the department. The capture efficiency shall be at a minimum:

a. 75% where a publication rotogravure process is employed,

b. 70% where a packaging rotogravure process is employed, or

c. 65% where a flexograph printing process is employed.

(m) Miscellaneous metal parts and products.

1. Applicability. Effective [effective date], this paragraph applies, subject to the provisions of sub. (12), to all coating line application areas, conveyors, flashoff areas, air and forced air driers, and ovens of any industry categorized under standard industrial classification codes of major groups 33 through 39 which are involved in the surface coating of miscellaneous metal parts and products with the following exceptions:

a. Coating of airplane exteriors,

b. Coating of marine vessel exteriors,

c. Automobile refinishing;

d. Customized topcoating of automobiles and trucks if production is less than 35 vehicles per day;

e. Adhesives and materials used to prepare a surface for adhesives;

f. Specialized coatings required by state or federal agencies;

g. Sealants or fillers whose purpose is to seal or fill seams, joints, holes and minor imperfections of surfaces;

h. Coating lines covered under pars. (c) through (j); or

i. Sources exempted under par. (a).

2. Emission limitations - cured coatings. No owner or operator of a miscellaneous metal parts or products coating line using a baked or specially cured coating technology shall cause, allow, or permit the emission of any VOCs in excess of:

a. 0.52 kilograms per liter (4.3 pounds per gallon) of coating, excluding water, delivered to a coating applicator that applies clear coatings;

b. 0.42 kilograms per liter (3.5 pounds per gallon) of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; and

c. 0.36 kilograms per liter (3.0 pounds per gallon) of coating, excluding water, delivered to a coating applicator for all other coatings.

3. Emission limitations - air dried coatings. No owner or operator of a miscellaneous metal parts or products coating line using an air dried coating technology shall cause, allow, or permit the emission of any VOCs in excess of:

a. After December 31, 1982, 0.58 kilograms per liter (4.8 pounds per gallon) of any coating, excluding water, delivered to a coating applicator;

b. After December 31, 1985, 0.52 kilograms per liter (4.3 pounds per gallon) of coating, excluding water, delivered to a coating applicator that applies clear coatings;

c. After December 31, 1985, 0.42 kilograms per liter (3.5 pounds per gallon) of coating, excluding water, delivered to a coating applicator for all other coatings;

4. Change in technology. Miscellaneous metal parts or products coating lines which, prior to January 1, 1980 used a baked or specially cured coating technology shall meet the emission limitations of subd. 2., notwithstanding the coating technology presently in use.

5. Multiple limitations. If more than one emission limitation in subd. 2. applies to a specific coating, then the least stringent emission limitation shall be applied.

6. Solvent washings. All VOC emissions from solvent washings shall be considered in the emission limitations in subds. 2. and 3., unless the used wash solvent is directed into containers that prevent evaporation into the atmosphere.

**Federal Citation Number:**
**154.13(3)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Organic Compound Emissions
*Subheading:* Transfer Operations and Associated Equipment
*Item Subpart:*

*Federal Effective Date:* 07/21/82

*State SIP Citation#:* 154.13(3)
*State Effective Date:*

**Regulatory Text**

(3) TRANSFER OPERATIONS AND ASSOCIATED EQUIPMENT. (a) Bulk gasoline terminals.

1. Applicability.

a. Effective August 1, 1979, subds. 2.,3., and 6. apply, subject to the provisions of sub. (12), to all bulk gasoline terminals and the associated equipment necessary to load tank truck or trailer compartments.

b. Effective (effective date), subds. 4., 5., and 7. apply subject to the provisions of sub. (12), to all bulk gasoline terminals and the associated equipment necessary to load tank truck or trailer compartments, except that compliance with subd. 7 is required by the deadline stated therein.

2. Vapor control system. No person may load gasoline into any tank trucks or trailers from any bulk gasoline terminal unless:

a. The bulk gasoline terminal is equipped with a vapor control system which is properly installed, in good working order, in operation and consisting of one of the following:

1) An adsorber, absorption, refrigeration or condensation system; or

2) A vapor collection system which directs all vapors to a fuel gas system; or

3) A control system demonstrated to have control efficiency equivalent to or greater than 1) or 2) above and approved by the department; and

b. All displaced vapors and gases are vented only to the vapor control system; and

c. A means is provided to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected; and

d. All loading and vapor lines are equipped with fittings which make vapor-tight connections and which close automatically when disconnected.

3. Emission limitation. The vapor control system required under subd. 2.a shall not allow mass emissions of VOCs from control equipment to exceed 80 milligrams per liter (4.7 grains per gallons) of gasoline loaded.

4. Operating requirements. The vapor collection system and the gasoline loading equiment shall be designed and operated in a manner that prevents:

a. Gauge pressure from exceeding 4.5 kPa (18 inches of H2O) and vacuum from exceeding 1.5 kPa (6 inches of H2O) in the gasoline tank truck;

b. A reading equal to or greater than 100% of the LEL at 2.5 centimeters from all points on the perimeter of a potential leak source;

c. Avoidable visible liquid leaks during loading or unloading operations.

5. Repair deadline. Provisions shall be made to repair and retest a vapor collection or control system that exceeds the limits of subd. 4.b within 15 days.

6. Precautions. Sources to which this paragraph applies shall not:

a. Allow gasoline to be discarded in sewers or stored in open containers, sub. (1) (c) notwithstanding; nor

b. Allow the pressure in the vapor collection system to exceed the tank truck or trailer pressure relief settings.

7. Truck sticker. After October 1, 1981, no person may load gasoline into any tank truck or trailer from any bulk gasoline terminal unless the tank truck displays a current sticker demonstrating that the truck is in compliance with par. (d).

(b) Bulk gasoline plants.

1. Applicability. a. Effective August 1, 1979, subds. 2., 3.a. and b., 4., 5. and 8. apply, subject to the provisions of sub. (12), to the

loading and storage facilities of all bulk gasoline plants which have a 3 year average annual throughput of 1,330,000 liters (350,000 gallons) of gasoline or more; to the unloading, loading, and storage facilities of all bulk gasoline plants which have a 3 year average annual throughput of 3,800,000 liters (1,000,000 gallons) of gasoline or more; and to all delivery vessels involved in such loading or unloading operations, with the following exceptions:

1) The loading or unloading of stationary storage tanks with a capacity of 2,176 liters (575 gallons) or less, notwithstanding s. NR 154.06(8).

2) Bulk plant unloading facilities, the delivery vessels receiving gasoline from bulk plants, and the operation of transferring gasoline from bulk plant to delivery vessel when the transfer takes place outside the counties of Brown, Calumet, Dane, Dodge, Fond du Lac, Jefferson, Kenosha, Manitowoc, Milwaukee, Outagamie, Ozaukee, Racine, Rock, Sheboygan, Walworth, Washington, Waukesha and Winnebago or when the gasoline is delivered exclusively to facilities exempted from the requirements of par. (c) by par. (c)1.a.2), 4), 5), 6), or 7). However, this paragraph does apply if gasoline is transferred during the ozone season to a delivery vessel whose last previous delivery was to a gasoline dispensing facility (either inside or outside of Wisconsin) which is required to have a vapor balance system.

b. Effective (effective date), subds. 3.c., 6. and 7. apply, subject to the provisions of sub. (12), to all vapor collection systems and all gasoline loading equipment required under subd. 1.a, except that compliance with subd. 3.c is required by the deadline stated therein.

2. Equipment requirements for bulk plants. No owner or operator of a bulk gasoline plant shall permit stationary storage tanks to load or unload gasoline unless each tank is equipped with a vapor balance system as described under subd. 5. and approved by the department; and

a. Each tank is equipped with a submerged fill pipe approved by the department; or

b. Each tank is equipped with a fill line whose discharge opening is flush with or near the bottom of the tank.

3. Equipment requirements for delivery vessels. No owner or operator of a bulk gasoline plant or delivery vessel shall permit the gasoline transfer operations regulated under this paragraph unless each delivery vessel involved in such operations is equipped with a vapor balance system as described under subd. 5. and approved by the department; and

a. Equipment is available at the bulk gasoline plant to provide for the submerged filling of each delivery vessel; or

b. Each delivery vessel is equipped for bottom filling, and

c. After October 1, 19981, the tank truck displays a current sticker demonstrating that the truck is in compliance with par. (d).

4. Transfer requirements. No owner or operator of a bulk gasoline plant or delivery vessel shall permit the transfer of gasoline unless:

a. Submerged or bottom filling is used; and

b. The vapor balance system is in good working order and is connected and operating; and

c. Delivery vessel hatches are closed at all times during transfer operations; and

d. There are no leaks in the delivery vessels' pressure-vacuum relief valves and hatch covers, nor in the delivery vessel tanks or stationary storage tanks or associated vapor and liquid lines during loading or unloading; and

e. The pressure relief valves on stationary storage tanks and delivery vessels are set to release at no less than 4.8 kPa (0.7 psig), or the highest possible pressure consistent with state or local fire codes or the national fire prevention association guidelines.

5. Vapor balance system. Vapor balance systems required under subds. 2. and 3. shall include vapor space connections on the stationary storage tank and on the delivery vessel with connecting pipe or hose. These connections are required either for loading of the bulk plant storage tank only or for both loading and unloading, as indicated in subd. 1. Both sides of all junctions shall be equipped with fittings which are vapor tight and will automatically and immediately close upon disconnection so as to prevent release of organic compound vapors.

6. Operating requirements. The vapor collection system and the gasoline loading equipment shall be designed and operated in a manner that prevents:

a. Gauge pressure from exceeding 4.5 kPa (18 inches of H2O and vacuum from exceeding 1.5 kPa (6 inches of H2O in the gasoline tank truck;

b. A reading equal to or greater than 100% of the LEL at 2.5 centimeters form all points on the perimeter of a potential leak source;

c. Avoidable visible liquid leaks during loading or unloading operations.

7. Repair deadline. Provisions shall be made to repair and retest a vapor collection or control system that exceeds the limits of subd. 6.b within 15 days.

8. Precautions. Notwithstanding sub. (1)(c), no owner or operator of a bulk gasoline plant shall permit gasoline to be spilled, discarded in sewers or stored in open containers.

(c) Gasoline dispensing facilities. 1. Applicability.

a. Effective August 1, 1979, subds. 2.a. and b., 3., 5., 6., 7.a. and b., 8. and 9. apply, subject to the provisions of sub. (12), to gasoline dispensing facilities, to the delivery vessels used to bring these facilities the gasoline which they dispense, and to the operation of transferring gasoline to the dispensing facilities with the following exceptions:

1) Gasoline dispensing facilities which are supplied exclusively by bulk gasoline plants whose unloading operations are exempted from the requirements of par. (b) by par. (b)1.a.

2) Gasoline dispensing facilities located outside the counties of Brown, Calumet, Dane, Dodge, Fond du Lac, Jefferson, Kenosha, Manitowoc, Milwaukee, Outagamie, Ozaukee, Racine, Rock, Sheboygan, Walworth, Washington, Waukesha and Winnebago.

3) Delivery vessels used exclusively to supply exempt gasoline dispensing facilities or used exclusively for the transfer operations exempted under 4) through 6) below.

4) Transfers made to storage tanks of gasoline dispensing facilities equipped with floating roofs or their equivalent which have been approved by the department.

5) Transfers made to any stationary storage tank at a gasoline dispensing facility with a capacity of 7,580 liters (2,000 gallons) or less which is in place on or before August 1, 1979.

6) Transfers made to any stationary storage tank at a gasoline dispensing facility with a capacity of 2,176 liters (575 gallons) or less which is installed after August 1, 1979.

b. Effective (effective date), subds. 2.c., 4. and 7.c apply, subject to the provisions of sub. (12), to all vapor collection systems and all gasoline loading equipment as required under subd. 1.a., except that compliance with subd. 2.c is required by the deadline stated therein.

2. Vapor control requirements. No owner or operator of a gasoline dispensing facility and no owner of a gasoline storage tank at such a facility shall transfer or cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank not excluded under subd. 1. unless:

a. The storage tank is equipped with a submerged fill pipe, and

b. The vapors displaced from it by filling are processed by a vapor control system in accordance with subd. 3., and

c. After October 1, 1981, the tank truck displays a current sticker demonstrating that the truck is in compliance with par. (d).

3. Vapor control system. The vapor control system required by subd. 2. shall include one or more of the following:

a. A vapor balance system with a vapor-tight vapor return line from the storage tank to the delivery vessel and a system that will ensure the vapor line is connected before gasoline can be transferred into the storage tank; or

b. A refrigeration-condensation system or equivalent capable of recovering at least 90% by weight of the organic compounds in the displaced vapor; or

c. A system demonstrated to have control efficiency equivalent to or greater than that provided under subpars. a. or b. and approved by the department.

4. Operating requirements. The vapor collection system and the gasoline loading equipment shall be designed and operated in such a manner that prevents:

a. Gauge pressure from exceeding 4.5 kPa (18 inches of H2O and vacuum from exceeding 1.5 kPa (6 inches of H2O) in the gasoline tank truck;

b. A reading equal to or greater than 100% of the LEL at 2.5 centimeters from all points on the perimeter of a potential leak source;

c. Avoidable visible liquid leaks during loading or unloading operations.

5. Delivery vessel unloading. The operator of a delivery vessel shall not commence transfer of gasoline to any gasoline dispensing facility equipped with a vapor valance system pursuant to subd. 3.a. without first properly connecting the vapor return line. The delivery vessel shall be designed, maintained and operated to be vapor tight at all times that it is vapor-laden.

6. Delivery vessel refilling. During the ozone season, vapor-laden delivery vessels shall be refilled in Wisconsin only at:

a. Bulk gasoline terminals complying with par. (a); or

b. Bulk gasoline plants equipped with a vapor balance system for unloading as described in par. (b)5.

7. Control equipment installation and maintenance. Each owner of a gasoline storage tank or delivery vessel shall:

a. Install all necessary control systems and make all necessary process modifications in accordance with subds. 2., 3., 4. and 5. of par. (c); and

b. Repair, replace or modify any worn out or malfunctioning component or element of design, and keep such records as may be requested in writing by the department relating to the repair, replacement or modification of any component or element of design of the control system.

c. Repair and retest a vapor collection or control system that exceeds the limits of subd. 4.b. within 15 days.

8. Control equipment operating and maintenance instructions. Each owner of a gasoline storage tank shall provide written instructions to the operator of the gasoline dispensing facility describing necessary operating and maintenance procedures and procedures for prompt notification of the owner in case of any malfunction of the control system.

9. Operation and maintenance requirement. Each operator of a gasoline dispensing facility shall:

a. Maintain and operate the control system in accordance with the specifications and the operating and maintenance procedures specified by the owner; and

b. Promptly notify the owner of the control system of any scheduled maintenance or of any malfunction requiring replacement or repair of major components of the system; and

c. Keep on the premise a copy of the instructions provided pursuant to subd. 8. and make these instructions available to an authorized representative of the department on request; and

d. Maintain such records on maintenance and malfunction as may be requested in writing by the department; and

e. Maintain gauges, meters, or other specified testing devices in proper working order.

(d) Gasoline delivery vessels.

1. Applicability.

a. Effective (effective date), subd. 2. applies, with compliance deadlines in accord with the compliance schedules for pars. (a), (b), and (c), to all gasoline delivery vessels except those exempted from vapor balance system installations under pars. (b) 1.a. and (c)1.a.3).

2. Equipment requirements. Except as provided under subd. 1.a., the owner or operator of a gasoline delivery vehicle shall:

a. Provide for all gasoline delivery vessels to be equipped for gasoline vapor collection.

b. Provide for all loading and vapor lines to be equipped with fittings which make vapor-tight connections.

c. Equip vapor lines leading to the vapor space in the delivery vessel with fittings which close automatically when disconnected.

d. Demonstrate through the sticker required in subpar. e. that the gasoline delivery vessel is in compliance with the following provisions:

1) An annual pressure test shall be performed on the vessel;

2) The vessel shall sustain a pressure change of no more than 0.75 kPa (3 inches of H2O) in 5 minutes when pressurized to a gauge pressure of 4.5 kPa (18 inches of H2O) or evacuated to a gauge pressure of 1.5 kPa (6 inches of H2O) during the test required in 1); and

3) A vessel failing to meet the requirements of 2) shall be repaired and retested within 15 days.

e. Display a sticker near the department of transportation certification plate which:

1) Shows the date that the gasoline delivery vessel was last certified under subpar. d;

2) Shows the identification number of the gsoline delivery vessel.

f. Design and operate the gasoline loading and unloading equipment in a manner that prevents:

1) A reading equal to or greater than 100% of the LEL at 2.5 centimeters from all points on the perimeter of a potential leak source; and

2) Avoidable visible liquid leaks during loading or unloading operations.

g. Repair and retest, within 15 days, components exceeding the limits of subpar. f.1).

3. Pressure Test Records.

a. Maintain for a period of 3 years from the recording date a log for each delivery vessel containing, at a minimum,:

1) Company name and the date and location of test required under subd. 2.d.2).

2) Delivery vessel identification number,

3) Initial test pressure and time of reading,

4) Final test pressure and time of reading,

5) Initial test vacuum and time of reading, and

6) Final test vacuum and time of reading.

b. Annually submit to the department information as developed under subd. 2.d.2), and as recorded under subpars. a.1) through 6).

(e) Transfer of VOCs at pharmaceutical manufacturing facilities.

1. Applicability. Effective (effective date), subd. 2. applies, subject to the provisions of sub. (12), to all storage vessels for VOCs of more than 7,751 liter (2,000 gallon) capacity at a synthetic pharmaceutical manufacturing facility.

2. Emission reduction requirements. No owner or operator of a synthetic pharmaceutical manufacturing facility shall permit the delivery of VOCs with vapor pressure in excess of 28.0 kPa (4.1 psia) at 20 degrees C from a truck or railcar to the storage vessel unless a vapor balance or equivalent control system is provided. The system must beat least 90% effective in reducing emissions from transfer operations.

(f) Transfer of any organic compound.

1. Applicability.

a. This paragraph applies to transfer operations in the Southeastern Wisconsin Intrastate AQCR involving organic compounds, solvents or mixtures having a vapor pressure greater than 10.5 kPa (1.52 psia) at 21 degrees C (70 degrees F), and to such transfer operations throughout the state at facilities on which construction or modification was commenced after April 1,1972, with the following exceptions;

1) Transfer operations involving organic compounds which are not photochemically reactive at facilities on which construction or modification was commenced before August 1, 1979.

2) Transfer operations involving, exclusively, organic compounds exempted under par. (13)(a).

b. Where a provision elsewhere in sub. (3) also applies, the more stringent requirement shall be met.

2. Tank loading. For transfers to storage tanks having greater than 3,785 liter (1,000 gallon) capacity, a permanent submerged fill pipe shall be used, provided such a tank does not have controls mentioned in sub. (2)(b)2.

3. Tank load out for high throughput facilities. At facilities with over 151,412 liters (40,000 gallons) per day throughput, a vapor collection and disposal system, vapor collection adapters and vapor tight seal, or an underfill method with the top hatches partially closed or a means of creating a slight back pressure when loading tank trucks or trailers shall be used.

4. Tank load out for low throughput facilities. At facilities with 151,142 liters (40,000 gallons) or less per day throughput, the underfill method or a submerged fill pipe extending to within 6 inches of the tank bottom shall be employed when loading tank trucks or trailers.

**Federal Citation Number:**
**154.13(5)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Organic Compound Emissions
*Subheading:* Use of Road Surfacing Materials
*Item Subpart:*
*Federal Effective Date:* 07/21/82

*State SIP Citation#:* 154.13(5)
*State Effective Date:*

**Regulatory Text**
(5) USE OF ROAD SURFACING MATERIALS.

(a) Cutback asphalts.

1. Applicability. This paragraph applies to the mixing, storage, use and application of cutback asphalts in Wisconsin. This paragraph does not apply to cutback asphalts intended for uses other than application to surfaces traversed by motor vehicles, bicycles or pedestrians.

2. Restricted materials. The following restrictions apply to the mixing, open storage, use or application of cutback asphalts during the ozone season.

a. After August 1, 1979, the use of rapid curing cutback asphalts shall not be permitted.

b. After May 1, 1980, the use of cutback asphalts for sealcoating operations shall not be permitted except where a single coat of liquid asphalt is applied to an aggregate base to control dust.

c. After May 1, 1981, the use of cutback asphalts shall not be permitted except for the aggregate base application allowed in subpar. b., and for use as a penetrating prime coat during the first and last months of the ozone season.

(b) Reserved.

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Particulate Emissions
*Subheading:* Fugitive Dust
*Item Subpart:*
*Federal Effective Date:* 04/18/83
*State SIP Citation#:* 154.11(2)
*State Effective Date:*

**Regulatory Text**
NR 154.11(2)

(b) In addition to meeting the requirements of par. (a), any direct or portable source located in a nonattainment area identified under s. NR 154.03(1) for suspended particulate matter; and any direct or portable source located near such areas whose aggregate fugitive dust emissions may cause an impact on the ambient air quality in such areas equal to or greater than one microgram per cubic meter (annual concentration) or 5 micrograms per cubic meter (maximum 24-hour concentration), as determined by the analysis under s. NR 154.03 shall meet the following RACT requirements:

1. Industrial and commercial private roadways and areas subject to traffic of more than 10 vehicles in any hour shall be paved with asphalt, concrete, or other surface approved by the department and shall be periodically cleaned in order to be kept free of loose material. Where paving is shown to be unreasonable, or where the roadway or area is to be used for less than one year, dust shall be controlled by other methods approved by the department such as watering, chemical suppression, or stabilizers.

2. Storage piles having a material transfer greater than 100 tons in any year:
a. Storage piles of material having a silt content of 5% to 20% shall be treated with water, surfactants, stabilizers, or chemicals; draped; or enclosed on a minimum of 3 sides. Access areas surrounding storage piles shall be watered, cleaned, or treated with stabilizers as needed to prevent fugitive dust from vehicle traffic.

b. Storage piles of material having a silt content of 20% or more shall be completely enclosed or draped except any part being worked, loaded or unloaded. Access areas surrounding storage piles shall be watered, cleaned or treated with stabilizers as needed to prevent fugitive dust from vehicle traffic.

3. Materials handling operations:

a. Materials handling operations, including but not limited to crushing, grinding, mixing, screening, compacting, conveying, handling of waste material with more than 5% silt, and loading and unloading of railcar, truck, ship or barge shall have fugitive emissions controlled to 20% opacity when wind speeds are less than 25 miles per hour except for 3 minutes in any hour, when fugitive emissions may equal 50% opacity.

b. Any device used to control fugitive emissions from materials handling operations which has a discharge to the ambient air shall be controlled equal to or less than 0.20 pounds of particulate matter per 1000 pounds of exhaust gas.

4. Process fugitive emissions:

a. Any device used to control fugitive particulate emissions from processes which has a discharge to the ambient air shall be controlled to an exhaust gas concentration equal to or less than 0.20 pounds of particulate matter per 1000 pounds of exhaust gas.

b. Emissions from any building or structure egress other than a stack shall be controlled such that visible emissions shall not exceed 20% opacity except for 3 minutes in any hour when fugitive emissions may equal 50% opacity.

c. When a direct or portable source is subject to the emission limitations of par. (b) the owner or operator may not exceed the following increments of progress in achieving compliance commencing with the nonattainment determination under s. NR 154.03(1):

1. Submit plans for compliance within 8 months.

2. Award any necessary contracts within 15 months.

3. Commence construction, installation or modification of emission control techniques required under subd. 1., 2. and 3.a. of par. (b) within 18 months.

4. Commence construction, installation or modification of emission control techniques required under subd. 3.b. and 4. or par. (b) within 24 months.

5. Complete construction, installation or modification of emission control techniques required under subd. 1., 2. and 3.a of par. (b), achieve compliance, and so certify to the department within 21 months.

6. Complete construction, installation or modification of emission control techniques required under subd. 3.b and 4. of par (b) within 30 months and achieve final compliance and so certify to the department within 33 months.

**Federal Citation Number:**
**NR154.11(2)(C)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Particulate Emissions
*Subheading:* Fugitive Dust
*Item Subpart:* Additional requirements beyond NR154.11(2)(a)
*Federal Effective Date:* 12/28/83
*State SIP Citation#:* NR415.04(3)
*State Effective Date:*

**Regulatory Text**

(c) In addition to meeting the requirements of par.(a), private industrial or commercial trafficable areas, roads and driveways which are located in or within one mile of a nonattainment area identified under s. NR 154.03 (1) for suspended particulate matter, are 20,000 square feet or more in total area, are on contiguous property under common ownership or control, and are subject on 3 separate days during any 14 consecutive day period to motor vehicle traffic at any point within the roads, driveways or trafficable areas at a rate equal to or greater than 10 motor vehicles per 60 minute period, shall meet the following RACT emission limitations:

1. Be paved with asphalt, concrete or other material approved by the department, or use other methods of dust control which the department approves as representing RACT for the particular road, driveway or trafficable area. Such other methods of dust control which may be approved by the department include but are not limited to periodic application of water, oil or suitable chemicals. In reviewing and acting upon plans required by par. (d) for compliance with this paragraph, the department shall consider the effects of the use of paving or other methods of dust control upon the rate and volume of surface water runoff and water quality.

2. If paved, be kept reasonably free of material likely to become airborne, through a program of periodic cleaning.

**Federal Citation Number:**
**NR154.11(2)(e)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Particulate Emissions
*Subheading:* Fugitive Dust
*Item Subpart:* Additional requirements beyond NR154.11 (2)(a)
*Federal Effective Date:* 12/28/83
*State SIP Citation#:* NR415.04(4)
*State Effective Date:*

**Regulatory Text**

(e) In addition to meeting the requirements of par.(a), any roadway or public trafficable area which is located in or within one mile of a nonattainment area identified under s. NR 154.03 (1) for suspended particulate matter and which is subject on 3 separate days during any 14 consecutive day period to motor vehicle traffic at any point within the roadway or public trafficable area at a rate equal to or greater than 10 motor vehicles per 60 minute period shall meet the RACT emission limitations of this paragraph. For purposes of this paragraph, ownership or control of different portions of a roadway or public trafficable area by different municipalities, interstate agencies, state agencies or federal agencies may not be considered in determining the contiguous area of the roadway or public trafficable area.

1. If paved, roadways and public trafficable areas covered by this paragraph shall be kept, through a program of periodic cleaning, reasonably free of material likely to become airborne. This subdivision does not apply to a public trafficable area of less than 20,000 contiguous square feet in area unless the public trafficable area is also a roadway.

2. If unpaved, roadways and public trafficable areas covered by this paragraph shall be paved with asphalt, concrete or other material approved by the department, or use other methods of dust control which the department approves as representing RACT for the particular roadway or public trafficable area. Such other methods of dust control which may be approved by the department include but are not limited to periodic application of water, oil or suitable chemicals. In reviewing and acting upon plans required by par.(d) for compliance with this paragraph, the department shall consider the effects of the use of paving or other methods of dust control upon the rate and volume of surface water run off and water quality. This subdivision does not apply to roadways or to public trafficable areas which have less than 20,000 contiguous square feet of unpaved surface area.

**Federal Citation Number:**
**NR154.11(2)(d)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Particulate Emissions
*Subheading:* Fugitive Dust
*Item Subpart:* Increments of progress for a direct or portable source
*Federal Effective Date:* 12/28/83
*State SIP Citation#:* NR415.04(5)
*State Effective Date:*

**Regulatory Text**

(d) When a direct or portable source is subject to the emission limitations of par. (b), (c) or (e) the owner or operator may not exceed the following increments of progress in achieving compliance commencing with the nonattainment determination under s. NR 154.03 (1):

1. Submit plans for compliance within 8 months.

2. Award any necessary contracts within 15 months.

3. Commence construction, installation or modification of emission control techniques required under pars. (b) 1. and 2.a., (c) and (e) within 18 months.

4. Commence construction, installation or modification of emission control techniques required under par. (b) 2.b. and 3. within 24 months.

5. Complete construction, installation or modification of emission control techniques required under pars. (b) 1. and 2.a., (c) and (e), achieve compliance, and so certify to the department within 21 months.

6. Complete construction, installation or modification of emission control techniques required under par. (b) 2.b. and 3. within 30 months and achieve final compliance and so certify to the department within 33 months.

**Federal Citation Number:**
**154.11(4)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Particulate Emissions
*Subheading:* Particulate Emission Limits For Fuel Burning Installations
*Item Subpart:*
*Federal Effective Date:* 04/18/83
*State SIP Citation#:* 154.11(4)
*State Effective Date:*

**Regulatory Text**
NR 154.11 (4)

(c) In addition to meeting the requirements of par. (a) or (b), all installations located in or near a nonattainment area identified under s. NR 154.03 (1) for suspended particulate matter whose aggregate particulate emissions (excluding fugitive dust) may cause an impact on the ambient air quality in such areas equal to or greater than one microgram per cubic meter (annual concentration) or 5 micrograms per cubic meter (maximum 24-hour concentration) as determined by the analysis under s. NR 154.03 shall meet the following RACT emission limitations:

1. Installations of 100 million BTU per hour or less: maximum emission of 0.24 pounds of particulate matter per million BTU input to any stack.

2. Installations of more than 100 million BTU per hour on which construction or modification commenced on or before April 1, 1972: maximum emission of 0.15 pounds of particulate matter per million BTU input to any stack.

3. Installations of more than 100 million BTU per hour but of not more than 250 million BTU on which construction or modification commenced after April 1, 1972: maximum emission of 0.15 pounds of particulate matter per million BTU input to any stack.

4. Installations of more than 250 million BTU per hour on which construction or modification commenced after April 1, 1972: maximum emission of 0.10 pounds of particulate matter per million BTU input to any stack.

(d) When an installation is subject to the emission limitations of par. (c) the owner or operator may not exceed the following increments of progress in achieving compliance commencing with the nonattainment determination under s. NR 154.03(1):

1. Submit plans for compliance within 6 months.

2. Award any necessary contracts within 12 months.

3. Commence construction, installation or modification of any emission control system within 24 months.

4. Complete construction, installation or modification of any emission control system within 30 months.

5. Achieve final compliance with the applicable emission limitations and so certify to the department within 33 months.

(e) Notwithstanding (c) 1. or 2., any fuel burning installation of 250 million BTU per hour or less on which construction or modification was commenced on or before April 1, 1972 may emit up to, but not more than, an emission rate defined by the equation E - 03.0006I (where I is the heat input of millions of BTU per hour and E is the maximum allowable particulate emissions in pounds per million BTU to any stack) if, as of March 1, 1980, for installations which may cause an impact on primary or associated secondary nonattainment areas, or as of (6 months after effective date of rule revision) for installations which may cause an impact on any other secondary nonattainment area, the installation has an emission rate based on original design or equipment performance test conditions (whichever is more restrictive) which is less than the limit set by the above equation, and the emission control system of such installations has not been allowed to degrade more than 0.05 pounds per million BTU from original design or acceptance performance test conditions.

**Federal Citation Number:**
**154.11(3)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Particulate Emissions
*Subheading:* Particulate Emission Limits for Processes
*Item Subpart:*
*Federal Effective Date:* 04/18/83

*State SIP Citation#:* 154.11(3)
*State Effective Date:*

**Regulatory Text**
NR 154.11(3)

(c) In addition to meeting the requirements of par. (a) or (b), any direct or portable source located in or near a nonattainment area identified under s. NR 154.03(1) for suspended particulate matter whose aggregate particulate emissions (excluding fugitive dust) may cause an impact on the ambient air quality in such areas equal to or greater than one microgram per cubic meter (annual concentration) or 5 micrograms per cubic meter (maximum 24-hour concentration) as determined by the analysis under s. NR 154.03 shall meet the following RACT emissions limitations:

1. Sources on which construction or modification was commenced after April 1, 1972 may not emit more than the emissions limits of par. (a) or 0.20 pounds of particulate matter per 1000 pounds of exhaust gas, whichever is more restrictive.

2. Sources on which construction or modification was commenced on or before April 1, 1972 may not emit more than 0.20 pounds of particulate matter per 1000 pounds of exhaust gas.

(d) When a direct or portable source is subject to the emission limitations of par. (c) or (e) the owner or operator may not exceed the following increments of progress in achieving compliance commencing with the nonattainment determination under s. NR 154.03(1):

1. Submit plans or compliance within 6 months.

2. Award any necessary contracts within 12 months.

3. Commence construction, installation or modification of any emission control system within 24 months.

4. Complete construction, installation or modification of any emission control system within 30 months.

5. Achieve final compliance with the applicable emission limitations and so certify to the department within 33 months.

(e) Notwithstanding par. (c), any cupola may emit up to, but not more than 0.25 pounds of particulate matter per 1000 pounds of exhaust gas.

**Federal Citation Number:**
**154.11(7)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Control of Particulate Emission
*Subheading:* RACT Requirements for Coking Operations
*Item Subpart:*
*Federal Effective Date:* 04/18/83

*State SIP Citation#:* 154.11(7)
*State Effective Date:*

**Regulatory Text**

(7) RACT requirements for coking operations.

(a) This subsection applies to all coking operations upon which construction or modification commenced before (effective date of rule revision). Notwithstanding any other provision of this section, all requirements of this subsection shall be met on or before (effective date of rule revision).

(c) Fugitive emissions from pushing operations shall be captured by a traveling hood and controlled to not more than 0.08 pounds of particulate matter per 1000 pounds of exhaust gas. Any emissions escaping capture may not exceed 20% opacity for each pushing operation, as determined by the average of 6 consecutive observations made at 15 second intervals.

(d) There may be no visible emissions from 90% of the doors of all coke ovens in use; 95% of all coke oven charging port lids on ovens in use; and 90% of all offtake piping on ovens in use, except those open for charging, pushing, cleaning, and maintenance as determined by a one pass observation.

(e) Quench towers for the application of water on hot coke shall be equipped with grit arrestors or equivalent equipment approved by the department. Water used in quenching shall not include coke by-product plant effluent, and total dissolved solids in make-up quenching water shall be less than 750 milligrams per liter.

(f) Coke oven combustion stacks may not emit more than 0.10 pounds of particulate matter per 1000 pounds of exhaust gas or have visible emissions greater than 20% opacity.

**Federal Citation Number:**
**154.015**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Department Review Times
*Subheading:* Review Times
*Item Subpart:*
*Federal Effective Date:* 01/22/87
*State SIP Citation#:* 154.015
*State Effective Date:*

**Regulatory Text**

NR 154.015 Department review times. Unless another time period is specified by law, the department shall complete its review and make a determination on all applications for permits and approvals listed under this section within the number of business days indicated, based on the date of receipt of the application.

(1) Alternate fuel variances under s. NR 154.02 (4) - 10 business days;

(2) Temporary excess emissions plans under s. NR 154.09 (1) (b) - 65 business days; and

(3) Use of emergency or reserve equipment under s. NR 154.09 (1) (c) - 65 business days.

**Federal Citation Number:**
**154.02(4)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Emission Prohibition, Exceptions, Delayed Compliance Orders and Variances
*Subheading:* Alternate fuel variances
*Item Subpart:*
*Federal Effective Date:* 05/11/81
*State SIP Citation#:* 154.02(4)
*State Effective Date:*

**Regulatory Text**
NR154.02(4)

(4) ALTERNATE FUEL VARIANCES. The department may grant temporary variances from the emission limitations of this chapter to air contaminant sources which request such variances in order to switch from a regular fuel to an alternate fuel which is in more plentiful supply, provided that the conditions of this subsection are met.

(a) If the office of state planning and energy has certified that a switch from the fuel regularly used by the applicant to an alternate fuel would cause an emission limitation to be exceeded is needed to protect public health, safety or welfare in the applicant's part of the state, the department may grant a temporary variance from such requirements provided that:

1. The applicant has submitted a list of steps which will be implemented without delay to minimize adverse effects caused by the switch in fuels permitted by the variance, including all feasible steps to minimize use of the alternate fuel through energy conservation and other measures; and

2. The applicant has provided, or has agreed to provide within 5 days after the date the variance is granted, information on the type, quantity and quality of fuel and rate of consumption in use before and to be used after the switch in fuels; and

3. Granting the variance would be unlikely to cause or exacerbate a violation of any primary ambient air quality standard; and

4. Litigation for violation of an emission limitation prescribed in this chapter or an ambient air quality standard prescribed in Wis. Adm. Code Chapter NR 155 is not presently pending; and

5. The applicant has agreed to submit no later than 90 days from the date that the variance is granted a plan and time schedule for preventing the recurrence of the conditions which necessitated a variance request; and

6. The applicant submitted and implemented in good faith any plan required to be submitted as a condition to a previously granted variance; and

7. After July 1, 1978, if the applicant uses natural gas or distillate oil as a regular fuel, the applicant has submitted and received department approval of a plan to minimize dependence on these fuels while complying with the emission limitations of this chapter.

(b) If the Office of State Planning and Energy has not certified that a switch in fuels is needed, the department may grant a temporary variance from the emission limitations of this chapter only if the conditions of (4)(a) 1. through 7. are met and the applicant has submitted documentation of the unavailability of the fuel regularly used and of any alternate fuel which the air contaminant source has the capability to burn in compliance with emission limitations.

(c) When granting a variance is likely to cause a secondary standard (but not a primary standard) to be violated or exacerbated, the following conditions shall apply:

1. The variance must specify an expiration date no later than 45 days from the date the variance is granted.

2. Prior to granting a variance extension which expires on a date more than 45 days after the date the variance was originally granted, the department shall:

a. Determine either that the applicant's regular fuel is unavailable or that certification by the Office of State Planning and Energy of the need for a switch in fuels in the applicant's part of the state remains in effect; and

b. Evaluate through ambient air quality monitoring and/or dispersion modeling the air quality impact of granting the variance and determine that maintenance of the primary standards is not being endangered; and

c. Solicit and consider public comment on permitting the extension.

(d) When granting a variance is unlikely to cause any ambient air quality standard to be violated, the following conditions shall apply:

1. The variance must specify an expiration date no later than 60 days from the date the variance is granted.

2. Prior to granting a variance extension which expires on a date more than 60 days after the date the variance was originally granted, the department shall:

a. Determine either that the applicant's regular fuel is unavailable or that certification by the Office of State Planning and Energy of the need for a switch in fuels in the applicant's part of the state remains in effect; and

b. Evaluate through ambient air monitoring and/or dispersion modeling the air quality impact of granting the variance. If the evaluation indicates that maintenance of the air standards is not being endangered, an extension may be granted. If the evaluation indicates that a secondary air standard has been or may be violated, the procedure set forth in subsection(4)(c) 2. shall apply.

(e) The Department may rescind or amend a variance granted under NR 154.02(4) at any time.

(5) The issuance or granting of any order or variance under subsection (2), (3) or (4) shall not relieve any person of the duty to comply with all other applicable federal, state and local laws and rules.

**Federal Citation Number:**
**154.02(1)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Emission Prohibition, Exceptions, Delayed Compliance Orders and Variances
*Subheading:* Applicability
*Item Subpart:*
*Federal Effective Date:* 05/11/81
*State SIP Citation#:* 154.02(1)
*State Effective Date:*

**Regulatory Text**

NR 154.02 (Title) (1)
(1) APPLICABILITY. The provisions of this chapter govern the release of air contaminants to the ambient air and the regulation of air contaminant sources by the department.

**Federal Citation Number:**
**154.02(2)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Emission Prohibition, Exceptions, Delayed Compliance Orders and Variances
*Subheading:* Delayed Compliance Orders
*Item Subpart:*
*Federal Effective Date:* 05/11/81
*State SIP Citation#:* 154.02(2)
*State Effective Date:*

**Regulatory Text**
NR 154.02 (2)

(2) DELAYED COMPLIANCE ORDERS. The department may, by order issued under section 144.35(1)(b), Wis. Stats., authorize a source not in compliance with an emission limitation prescribed in this chapter to achieve compliance as expeditiously as practicable but not later than three years after such requirement became applicable. The department shall hold a public hearing in accordance with its rules prior to authorizing any period of delayed compliance which exceeds 30 days in duration. No such order shall be issued unless:

(a) The cause of the violation was a malfunction, equipment failure, act of God, or some other condition beyond the entity's control, when using all prudent planning;

(b) The air contaminant source is located so that it will not delay attainment or affect maintenance of an ambient air quality standard at any point beyond the property line of the entity;

(c) Good faith efforts have been made to comply with this chapter;

(d) If the violation was caused by a malfunction or equipment failure, any plan required to be prepared by NR 154.06 (9) was complied with;

(e) The air containment for which a deferral is sought is not a hazardous pollutant for which an emission standard has been established by the administrator of the U.S. environmental protection agency.

(f) The conditions listed in NR 154.09(1), if applicable, are met;

(g) The order contains:
1. An express provision whereby the order recipient consents to its issuance:

2. A requirement that the order recipient employ reasonable emission monitoring techniques to assess compliance with any interim requirements imposed by the order;

3. A requirement for submittal of reports showing whether any interim requirements, increments of progress, and final compliance have been achieved;

4. A provision prohibiting the reduction of employee wages where supplemental, intermittent or other dispersion-dependent control methods are to be used;

5. In the case of a major stationary source, a notice that it may be required to pay administrative noncompliance penalties for failure to comply with the order and that no order issued under this subsection shall be effective until it is approved by the administrator of the U.S. environmental protection agency or his designee.

(h) All reasonably available alternative operating procedures and interim control measures to minimize emissions shall be utilized by the air contaminant source during the period of delayed compliance.

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Emission Prohibition, Exceptions, Delayed Compliance Orders and Variances
*Subheading:* RACT Variances
*Item Subpart:*
*Federal Effective Date:* 05/11/81
*State SIP Citation#:* 154.02(3)
*State Effective Date:*

**Regulatory Text**
NR 154.02 (3)

(3) RACT VARIANCES.

(a) The department may grant source-specific revisions to the state implementation plan setting alternate compliance schedules or alternate emission limitations, or both, where compliance with general RACT requirements of this chapter are shown to be technologically or economically infeasible, provided that:

1. The revision will not delay attainment or prevent maintenance of any ambient air quality standard, as determined by methods acceptable to the department.

2. Construction or modification of the air contaminant source for which a revision is requested was commenced on or before July 1, 1979.

3. The owner or operator of the air contaminant source for which a revision is requested demonstrates that all direct or portable sources owned or operated in the state by such person are in compliance with all applicable requirements of this chapter or are on a schedule for compliance with such requirements.

4. The owner or operator submits to the department information concerning the conditions or special circumstances which demonstrates, to the department's satisfaction, that the applicable general RACT requirements from which variance is sought are technologically or economically infeasible. In addition,

a. Where an alternate compliance schedule is sought, the owner or operator shall submit a proposed schedule which demonstrates reasonable further progress and contains a date for final compliance as soon as practicable.

b. Where alternate emission limitations are sought, the owner or operator shall submit proposed emission limitations.

c. Requests for revisions shall be signed by the principle executive officer; partner; sole proprietor; or principal governmental executive or elected official or a duly authorized representative, as appropriate.

d. Requests shall contain other relevant information as required by the department.

(b) The department, in acting upon any request for a revision under this subsection, shall:

1. Act on requests for revisions within 3 months of the filing of a completed request.

2. Offer, through public notice, the opportunity for public comment including, where requested, a public hearing.

3. State in writing the reasons for denying, granting, or for granting in modified form any request.

(c) The department may, after notice and opportunity for hearing, revoke or modify any revision when:

1. Any term or condition of the revision has been violated;

2. Changes in ambient air quality indicate that the source has a significant adverse impact on the attainment or maintenance of any ambient air quality standard; or

3. The owner or operator did not act in good faith in demonstrating the technological or economic infeasibility of compliance with the general RACT requirements or in submitting other relevent information in support of the revision request.

(d) When the department grants, modifies or revokes a source specific revision to a general RACT requirement which has been approved by the administrator of the U.S. environmental protection agency as part of the state implementation plan, such revision shall not become effective until:

1. It has been submitted to the administrator pursuant to applicable law, including but not limited to 42 U.S.C. 7410, as amended, and 40 CFR Parts 51 and 52, as amended, and all such requirements have been met, and

2. It has been approved by the administrator or his designee as a revision to the state implementation plan.

**Federal Citation Number:**
**NR154.08(2)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Enforcement and Penalties for Violation of Air Pollution Control Provisions
*Subheading:* Penalties
*Item Subpart:* Penalties Provided Under s.144.426, Stats.
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR494.03
*State Effective Date:*

**Regulatory Text**

(2) Any person who violates any provision of ss. 144.30 to 144.426 or 144.96, Stats., this chapter, ch. NR101 or 155, or a permit or special order issued by the department under ss. 144.30 to 144.426 or 144,96, Stats., is subject to the penalties provided under s. 144.426, Stats.

**Federal Citation Number:**
**NR154.08(1)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Enforcement and Penalties for Violation of Air Pollution Control Provisions
*Subheading:* Procedure
*Item Subpart:* Proceed According to s.144.423, Stats.
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR494.025
*State Effective Date:*

**Regulatory Text**
NR 154.08 ENFORCEMENT AND PENALTIES.

(1) If the department has reason to believe that a violation of ss. 144.30 to 144.426 or 144.96, Stats., this chapter, ch. NR101 or 155, or of a permit, plan approval or special order issued by the department under ss. 144.30 to 144.426 or 144.96, Stats., has occurred, the department may proceed under s. 144.423, Stats.

**Federal Citation Number:**
**154.03**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Nonattainment Areas
*Subheading:* Nonattainment Areas: Sources Affected
*Item Subpart:*
*Federal Effective Date:* 05/11/81

*State SIP Citation#:* 154.03
*State Effective Date:*

**Regulatory Text**
NR 154.03 Nonattainment Areas; Sources affected.

(1) NONATTAINMENT AREAS. The department may, from time to time, issue documents defining, listing or describing any area of the state where it has determined that any ambient air quality standard for any air contaminant is not being met.

(2) SOURCES AFFECTED. Upon issuing documents under subsection (1), the department shall also issue documents identifying, listing or describing air contaminant sources located in or near nonattainment areas, the location or impact of whose emissions require such sources to comply with RACT emission limitations specified in NR 154.11 or NR 154.12.

(3) The impact of a source's emissions on a nonattainment area shall be determined by the department, using methods including but not limited to ambient air monitoring an meteorological data, and diffusion modeling.

(4) The failure to identify, in a document issued under sub. (2) a specific source in or near a nonattainment area which is otherwise subject to RACT emission limitations shall not relieve such source from compliance.

(5) The department may issue or revise a document under sub. (1) or (2) only after 30 days notice and public hearing in the region affected. Such hearings shall not be contested cases under s. 227.01 (2), Wis. Stats.

**State:** **Wisconsin**
*Chapter Title:*
*Main Heading:* NR 400 Air Pollution Control Definitions
*Subheading:* NR 400.01 Applicability; purpose
*Item Subpart:*
*Federal Effective Date:*
*State SIP Citation#:* NR 400.01
*State Effective Date:*

**Regulatory Text**

NR 400.01 APPLICABILITY; PURPOSE. (1) APPLICABILITY. This chapter applies to terms used in chs. NR 400 to 499. In addition to the definitions in this chapter other definitions may be included in individual chapters or sections in chs. NR 401 to 499 which are applicable to terms used in those respective chapters or sections.

(2) PURPOSE. This chapter is adopted under s. 144.31, Stats., to establish a set of definitions for terms commonly used throughout chs. NR 400 to 499. Individual chapters or sections in chs. NR 401 to 499 may contain additional definitions for terms unique to an individual chapter or section or to a specified series of chapters. If an individual chapter or section defines a term which is also defined in this chapter, the former definition applies in the individual chapter or section rather than the definition in this chapter.

**Federal Citation Number:**
**NR 400.02**

Last Updated: 01/23/97

**State:** **Wisconsin**
*Chapter Title:*
*Main Heading:* NR 400 Air Pollution Control Definitions
*Subheading:* NR 400.02 Definitions
*Item Subpart:*
*Federal Effective Date:*
*State SIP Citation#:* NR 400.02
*State Effective Date:*

**Regulatory Text**

NR 400.02 DEFINITIONS.

(1a) "Acid rain phase I affected unit" means any unit listed in Table A of 42 USC 7651c. These are:

(a) Wisconsin Power and Light - Edgewater generating station unit 4.

(b) Dairyland Power Cooperative - Genoa generating station unit 3.

(c) Wisconsin Power and Light - Nelson Dewey generating station units 1 and 2.

(d) Wisconsin Electric Power Company - North Oak Creek generating station units 1, 2, 3 and 4 and South Oak Creek generating station units 5, 6, 7 and 8.

(e) Wisconsin Public Service Corporation - Pulliam generating station unit 8.

(1j) "Actual emissions" means the total emissions generated by a facility over a specified period of time taking into account any reductions made by a control device or technique.

(2) "Air contaminant" has the meaning given in s. 144.30(1), Stats.

(3) "Air contaminant source" has the meaning given in s. 144.30(2), Stats.

(4) "Air curtain destructor" has the meaning given in s. 144.436(1)(a), Stats.

(4m) "Air pollutant" means an air contaminant as defined in s. 144.30(1), Stats.

(5) "Air pollution" means the presence in the atmosphere of one or more air contaminants in such quantities and of such duration as is or tends to be injurious to human health or welfare, animal or plant life, or property, or would unreasonably interfere with the enjoyment of life or property.

(5e) "Air pollution control permit" has the meaning given in s. 144.30 (3), Stats.

(5s) "Air quality control region" or "AQCR" means an area designated under 42 USC 7407 or s. NR 404.03 in which a plan to maintain or achieve air standards is implemented on a regional basis. Air quality control regions include both interstate and intrastate regions.

(6) "Air region" means an area such as an AQCR designated pursuant to federal or Wisconsin laws in which a program to maintain or achieve air standards is implemented on a regional basis.

(7) "Allocation of the available air resource" has the meaning designated in s. 144.30(3m), Stats.

(8) "Allowable emission" has the meaning given in s. 144.30(4), Stats.

(9) "Alternative method" means any method of sampling analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the department's satisfaction to produce, in specific cases, results adequate for the department's determination of compliance.

(10) "Ambient air" means the portion of the atmosphere external to buildings and to which the general public has access.

(11) "Ambient air increment" or "air increment" means the maximum allowable increase in concentration of an air contaminant above the baseline concentration of the air contaminant.

(11m) "API" means American Petroleum Institute, 1220 L Street, N.W., Washington, D.C. 20005.

(12) "Approved" means approved by the department of natural resources.

(15) "ASME" means American Society of Mechanical Engineers, 345 E. 47th Street, New York, New York 10017.

(16e) "ASTM" means American Society for Testing and Materials, 1916 Race St., Philadelphia, PA 19103.

(17) "Baseline concentration" has the meaning given in s. 144.30(8), Stats.

(17m) "Basic emissions unit" means the smallest collection of equipment which in combination emits or is capable of emitting any air contaminant.

(18) "Best available control technology" has the meaning given in s. 144.30(9), Stats.

(19) "Boiler" means any device with an enclosed combustion chamber in which fuel is burned to heat a liquid for the primary purpose of producing heat or power by indirect heat transfer.

(20) "Breakdown" means a sudden failure of emission control or emission monitoring equipment to function as a result of wear, failure to repair, breakage, unavoidable damage, or other unintentional causes.

(21) "BTU" means British thermal unit.

(21e) "Bulk gasoline plant" means a gasoline storage and distribution facility which receives gasoline from bulk terminals, stores it in stationary storage tanks, and subsequently distributes it to gasoline dispensing facilities.

(21m) "Capture efficiency" means the weight per unit time of an air contaminant entering a capture system and delivered to a control device divided by the weight per unit time of the air contaminant generated by the source, expressed as a percentage.

(22) "Capture system" means the equipment (including hoods, ducts, fans, etc.) used to contain, capture, or transport an air contaminant to a control device.

(23) "Commence construction" means to engage in a program of on-site construction, including site clearance, grading, dredging or landfilling specifically designed for a stationary source in preparation for the fabrication, erection or installation of the building components of the stationary source.

(24) "Commence modification" means to engage in a program of on-site modification which may include site clearance, grading, dredging or landfilling in preparation for a specific modification of a stationary source.

(26) "Control device" means equipment used to destroy or remove air contaminants in a gas stream exiting a capture system prior to emission.

(26e) "Control efficiency" means the percentage by which a control device or technique reduces the emissions from a stationary source.

(26m) "Control system" means any number of control devices, including condensers, which are designed and operated to reduce the quantity of air contaminants emitted to the atmosphere.

(27) "Day" means a 24-hour period beginning at midnight.

(28) "Department" means the department of natural resources, state of Wisconsin.

(29) "Direct source" means any stationary source which may directly result in the emission of any air contaminant at a fixed location (e.g., building demolition, foundry, grain elevator, gravel or stone quarry, paper mill, power plant, etc.).

(31) "Emission" means a release, whether directly or indirectly, of any air contaminant to the atmosphere.

(32) "Emission limitation" or "emission standard" has the meaning given in s. 144.30(11), Stats.

(33) "Emission point" means any individual opening at a fixed location through which air contaminants are emitted.

(34) "Emission reduction option" has the meaning given in s. 144.30(12), Stats.

(35) "Emissions unit" means any part of a stationary source which emits or is capable of emitting any air contaminant.

(38) "Equivalent method" means any method of sampling and analyzing for an air pollutant which has been demonstrated to the department's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

(39) "Facility" means an establishment -- residential, commercial, institutional or industrial -- which emits or causes emissions of air contaminants.

(39m) "Federally enforceable" means all limitations and conditions which are enforceable by the administrator of the U.S. environmental protection agency, including those requirements developed pursuant to chs. NR 440 and 446 to 449, requirements within any applicable state implementation plan, any permit requirements established pursuant to ch. NR 405, requirements in construction permits issued under ch. NR 406 or 408 and requirements in operation permits issued pursuant to ch. NR 407 and title V of the federal clean air act which are designated as federally enforceable.

Note: Permit or state implementation plan limitations generally considered federally enforceable are limitations on the allowable capacity of the equipment, requirements for the installation, operation and maintenance of pollution control equipment, limits on hours of operation and restrictions on amounts of materials combusted, stored or produced. To be federally enforceable, restrictions on operation, production or emissions must reflect the shortest practicable time period, in no event for a period in excess of 30 days, and they must be tied to other enforceable operating restrictions at the source. General limitations on potential to emit, such as yearly limits in tons per year, by themselves, are not considered federally enforceable. The use of hourly, daily, weekly or monthly rolling averages are generally acceptable. Any federally enforceable limitations or conditions must be practically enforceable, ensure continuous compliance with the restrictions and include adequate testing, monitoring and recordkeeping procedures in an applicable federally issued permit, in a federally approved state implementation plan or in a permit issued under the state implementation plan.

(40) "Fixed capital cost" means the capital needed to provide all of the depreciable components of a stationary source.

(41) "Fuel" means any solid, liquid or gaseous materials used to produce useful heat or power by burning.

(42) "Fugitive emission" means an emission from any emission point within a facility other than a flue or stack.

(43) "Gasoline" means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater which is used as a fuel for internal combustion engines.

(43e) "Heat input" means the total gross calorific value per unit of time of all fuels being burned, where gross calorific value of a fuel is measured by ASTM Method D240-87, D1826-88 or D2015-91, incorporated by reference in s. NR 484. Where the test method gives a higher and a lower heating value, heat input is calculated in Btu per hour using the higher heating value of the fuel.

(43m) "Highway" has the meaning given it in s. 340.01(22), Stats.

(44) "Hour" means any 3,600 second period.

(45) "Implementation plan" means a plan adopted to implement, maintain and enforce air standards within the state, an air region, or a portion of the state or region.

(46) "Incinerator" means a combustion apparatus designed for high temperature operation in which solid, semisolid, liquid, or gaseous combustible wastes are ignited and burned to produce solid and gaseous residues containing little or no combustible material.

(46m) "Increase in the net amount of emissions" has the same meaning as the phrase "net emissions increase" which is defined in s. NR 405.02(24).

(47) "Indirect source" means any stationary source which conveys motor vehicles or which attracts or may attract mobile source activity and thus indirectly causes the emission of any air contaminant. Such indirect sources include, but are not limited to highways and roads; parking facilities; retail, commercial and industrial facilities; recreation, amusement, sports and entertainment facilities; airports; office and government buildings; and educational facilities.

(48) "Intersection" has the meaning given in s. 340.01(25), Stats.

(49) "KPa" means kilo Pascals (1.0 kPa = 0.15 psia).

(50) "Kraft pulp" means any pulp produced with an alkaline sulfide solution containing sodium hydroxide and sodium sulfide for a cooking liquor.

(51) "Laboratory" means a facility or portion of a multi-use facility which does not produce a product for regular commercial use or sale and which is used primarily for scientific or technical experimentation or observation of matter for the purpose of research, development, quality assurance, analysis or teaching.

(52) "Light-duty trucks" means any motor vehicles rated at 3864 kilograms (8500 pounds) gross weight or less which are designed primarily for the purpose of transporting goods and materials, or derivatives of such vehicles.

(53) "Lowest achievable emission rate" has the meaning given in s. 144.30(15), Stats.

(53m) "Maximum theoretical emissions" means the quantity of air contaminants that theoretically could be emitted by a stationary source without control devices based on the design capacity or maximum production capacity of the source and 8,760 hours of operation per year. In determining the maximum theoretical emissions of VOCs for a source, the design capacity or maximum production capacity shall include the use of raw materials, coatings and inks with the highest VOC content used in practice by the source.

(53s) "Minor source" means any stationary source which is not a major source.

(54) "Mobile source" means any motor vehicle or equipment other than a semistationary source which is capable of emitting any air contaminant while moving (e.g.,automobile bulldoser, bus, locomotive, motorboat, motorcycle, snowmobile, steamship, truck, etc.).

(55) "Modification" means any physical change in, or change in the method of operation of, a stationary source that increases the amount of emissions of an air contaminant or that results in the emission of an air contaminant not previously emitted. A modification does not include any changes identified in s. NR 406.04(4).

(55e) "Modified indirect source" means an indirect source the modification of which is commenced after July 1, 1975, or after the date of issuance of the last air pollution control permit or plan approval to the source, whichever is later.

(56) "Motor vehicle" or "vehicle" means every self-propelled device, except railroad trains, by which any person or property is or may be transported or drawn upon a highway.

(57) "Municipality" has the meaning given it in s. 144.01(6), Stats.

(58) "New direct or portable source" means a direct or portable source, the construction or modification of which is commenced after April 1, 1972, or the effective date of promulgation of an emission limit which applies.

(59) "New indirect source" means an indirect source, the construction of which is commenced after July 1, 1975.

(59m) "Nitrogen oxides" or "NOx" means all oxides of nitrogen except nitrous oxide.

(60) "Nonattainment area" has the meaning given in s. 144.30(21), Stats.

(60m) "Opacity" means the state of a substance which renders it partially or wholly impervious to rays of light. (20% opacity equals one unit on the Ringlemann Chart.) (61) "Operator" means any person who leases, controls, operates or supervises a facility, an air contaminant source, or air pollution control equipment.

(62) "Organic compound" means a compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates and ammonium carbonate.

(63) "Overall emission reduction efficiency" means the weight per unit time of an air contaminant removed by a control device divided by the weight per unit time of the air contaminant generated by the source, expressed as a percentage.

(64) "Ozone" means an allotropic form of oxygen found in the atmosphere which is a photochemical oxidant that oxidizes compounds not readily oxidized by oxygen alone; ozone is a secondary pollutant resulting from the conversion of oxygen in the presence of sunlight and such precursors as volatile organic compounds and nitrogen oxides.

(65) "Ozone season" means the period from May 1 through September 30 of any year.

(66) "Particulate" or "particulate matter" means any airborne finely divided solid or liquid material with an aerodynamic diameter smaller than 100 micrometers.

(66m) "Particulate matter emissions" means all finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by an applicable reference method or an equivalent or alternative method specified by the department.

(67) "Parts per million" or "ppm" means parts of a contaminant per million parts of gas by volume.

(68) "Performance test" means measurements of emissions or other procedures used for the purpose of determining compliance with a standard of performance.

(69) "Person" means any individual, corporation, company, cooperative, operator, tenant, lessee, syndicate, partnership, co-partnership, firm, association, trust, estate, public or private institution, joint stock company, political subdivision of the state of Wisconsin, state agency, interstate agency, federal agency, or any legal successor, representative, agent or agency of the foregoing.

(69m) "PM10 emissions" means finely divided solid or liquid material, with an aerodynamic diameter less than or equal to a nominal 10 micrometers, emitted to the ambient air as measured by an applicable reference method or an equivalent or alternative method specified by the department.

(70) "Portable source" means any facility, installation, operation or equipment which may directly result in the emission of any air contaminant only while at a fixed location but is capable of being transported to a different location (e.g., portable asphalt plant, portable package boiler, portable air curtain destructor, etc.). As a type of direct stationary source, a modified portable source or a portable source which has never received a plan approval or air pollution control permit is subject to the requirements of chs. NR 406, 407 and 408.

(72) "Process line" means one or more actions or unit operations which must function simultaneously or in sequence in order to manufacture or modify a product (e.g., a spray booth, conveyor and drying oven are considered a process line).

(74) "Psia" means pounds per suqare inch absolute.

(75) "Reasonably available control technology" or "RACT" means that which provides the lowest emission rate that a particular source is capable of achieving by the application of control technology that is reasonably available considering technological and economic feasibility. Such technology may previously have been applied to similar, but not necessarily identical, source categories.

(76) "Reconstruction" means the removal of components of a stationary source and the substitution of those components with similar new components to such an extent that the fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new stationary source. The term "reconstruction" does not apply to minor sources.

(77) "Reference method" means any method of sampling and analyzing for an air pollutant as described in Appendix A of 40 CFR part 60, incorporated by reference in ch. NR 484.

(78) "Relocation" means the removal of a stationary source from one location and the siting of the stationary source at a different location.

(78m) "Remediation" means the removal of a contaminant from a solid or liquid material.

(79) "Replacement" means the physical dismantling of a stationary source and the substitution of that source with a stationary source which is similar in operating capacity and function.

(80) "Residual fuel oil" means an industrial fuel oil of grade No. 4, 5 or 6, as determined by the specifications in ASTM D396-89a, incorporated by reference in ch. NR 484. (80m) "Ringlemann Chart" means the chart published by the U.S. bureau of mines in which are illustrated graduated shades of grey to black for use in estimating the shade or density of smoke.

Note: One unit on the Ringlemann Chart equals 20% opacity. The Ringlemann Chart is published as Figure 1 in "Fundamentals of Smoke Abatement," December 1950, bureau of mines Information Circular 7588, which is incorporated by reference in ch. NR 484.

(80s) "Road" means the entire width between boundary lines of any way open to the public for vehicular travel.

(81) "Roadway" has the meaning given it in s. 340.01(54), Stats.

(83) "Secretary" means the secretary of the department of natural resources, state of Wisconsin.

(84) "Semi-stationary source" means any facility, operation or equipment that has the capability of emitting any air contaminant while moving, but generally does not emit while moving (e.g., diesel cranes, air compressors, and electric generators such as those used at construction sites, etc.)

(86) "Shutdown" means the cessation of operation of a direct or portable source or of emission control equipment.

(87) "Smoke" means all products of combustion of sufficient density to be observable, including but not limited to carbon, dust, fly ash, and other particles, but not including uncombined water.

(88) "Solvent" means organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents.

(89) "Stack" means any device or opening designed or used to emit air contaminants to the ambient air.

(90) "Standard conditions" means a temperature of 20 C (68 F) and a pressure of 760 millimeters of mercury (29.92 inches of mercury).

(91) "Standard industrial classification code" or "SIC code" means the series of codes which classify facilities according to the type of economic activity in which they are engaged, as described in the Standard Industrial Classification Manual, 1987, incorporated by reference in ch. NR 484.

(93) "Standard pressure" means a pressure of 760 millimeters of mercury (29.92 inches of mercury).

(94) "Standard temperature" means a temperature of 20 C (68 F).

(95) "Startup" means the setting in operation of a facility or its emission control equipment for any purpose which produces emissions.

(96) "Stationary source" has the meaning given in s. 144.30(23), Stats.

(97) "Technological infeasibility" means incapable of being accomplished or carried out as a matter of practicality; i.e., technically impracticable rather than technically impossible.

(98) "Thermal evaporation unit" means any device which uses temperatures greater than the ambient temperature or 100 fahrenheit, whichever is greater, to assist in evaporating organic compounds from soil or water.

(98m) "Total reduced sulfur" or "TRS" means the sum of any sulfur containing compounds in which the oxidation state of sulfur is less than zero. Note: Common examples of such compounds are hydrogen sulfide, carbonyl sulfide, dimethyl sulfide, carbon disulfide, dimethyl disulfide and mercaptans.

(99) "Uncombined water" means water not chemically or physically bound to another material

(100) "Volatile organic compound" or "VOC" means any organic compound which participates in atmospheric photochemical reactions. This includes any such organic compound other than the following compounds, which have been determined to have negligible photochemical reactivity:

(a) Methane,

(b) Ethane,

(c) Methylene chloride (Dichloromethane),

(d) 1,1,1-Trichloroethane (Methyl chloroform),

(e) Trichlorofluoromethane (CFC-11),

(f) Dichlorodifluoromethane (CFC-12),

(g) Chlorodifluoromethane (HCFC-22),

(h) Trifluoromethane (HFC-23),

(i) 1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113),

(j) 1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC-114),

(k) Chloropentafluoroethane (CFC-115),

(l) 1,1,1-Trifluoro-2,2-dichloroethane (HCFC-123),

(m) 2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124),

(n) Pentafluoroethane (HFC-125),

(o) 1,1,2,2-Tetrafluoroethane (HFC-134),

(p) 1,1,1,2-Tetrafluoroethane (HFC-134a),

(q) 1,1-Dichloro-1-fluoroethane (HCFC-141b),

(r) 1-Chloro-1,1-difluoroethane (HCFC-142b),

(s) 1,1,1-Trifluoroethane (HFC-143a),

(t) 1,1-Difluoroethane (HFC-152a), and

(u) Perfluorocarbon compounds which fall into the following classes:

1. Cyclic, branched or linear completely fluorinated alkanes.

2. Cyclic, branched or linear completely fluorinated ethers with no unsaturations.

3. Cyclic, branched or linear completely fluorinated tertiary amines with no unsaturations, and

4. Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

Note: The test methods used to measure VOC are specified in s. NR 439.06(3).

**State:** **Wisconsin**
*Chapter Title:*
*Main Heading:* NR 422 Control of Organic Compound Emissions from Surface Coating, Printing and Asphalt Surfacing Operations
*Subheading:* NR 422.04 Methods of compliance
*Item Subpart:*
*Federal Effective Date:*
*State SIP Citation#:* NR 422.04
*State Effective Date:*

**Regulatory Text**

NR 422.04 METHODS OF COMPLIANCE. (1) IN-LINE AVERAGING. Compliance with the emission limitations of this chapter may be achieved through a daily volume-weighted average of all coatings or inks applied by emission units in a process line subject to the same numerical emission limitation. Any owner or operator achieving compliance by means of this subsection shall comply with the reporting requirements of s. NR 439.03(7) and the recordkeeping requirements of s. NR 439.04(5)(g).

(a) No owner or operator of a coating line subject to an emission limitation contained in ss. NR 422.05 to 422.08, 422.09 to 422.12, 422.132 to 422.135, 422.15 or 422.155 and complying with the emission limitation by means of this subsection may cause, allow or permit the daily volume-weighted average VOC content to exceed the emission limitation to which the coatings are subject. For purposes of this paragraph, daily volume-weighted average VOC content shall be calculated by using the following equation:

$$VOC_A = \left[ \sum_{i=1}^{n} C_i V_i \right] / V_T$$

where:

$VOC_A$ is the volume-weighted average VOC content of 2 or more coatings applied on a coating line during any day in kilograms per liter (pounds per gallon) of coating, excluding water

i is the subscript denoting an individual coating

n is the number of different coatings subject to the same numerical emission limitation applied during any day on a coating line

$C_i$ is the VOC content of each coating (i) as applied during any day on the coating line in kilograms per liter (pounds per gallon) of coating, excluding water

$V_i$ is the volume of each coating (i), excluding water, as applied during any day on the coating line in liters (gallons)

$V_T$ is the total volume of all n coatings subject to the same emission limitation, excluding water, applied during any day on the coating line in liters (gallons)

(b) No owner or operator of a printing line subject to an emission limitation contained in s. NR 422.14(2)(a) or (b) and complying with the emission limitation by means of this subsection may cause, allow or permit the daily volume-weighted average VOC content to exceed the emission limitation to which the inks are subject.

1. When s. NR 422.14(2)(a) applies, the daily volume-weighted average VOC content shall be calculated by using the following equation:

$$VOC_B = \frac{\sum_{i=1}^{n} C_i L_i V_{VFi}}{\sum_{i=1}^{n} L_i V_{VFi}}$$

where:

$VOC_B$ is the volume-weighted average VOC content of 2 or more inks applied on a printing line during any day in percent VOC by volume of the volatile fraction

i is the subscript denoting an individual ink

n is the number of different inks subject to the same emission limitation applied during any day on a printing line

$C_i$ is the VOC content in percent VOC by volume of the volatile fraction in each ink (i) as applied

$L_i$ is the volume of each ink (i) as applied in liters (gallons)

$V_{VFi}$ is the volume fraction volatile content in each ink (i) as applied

2. When s. NR 422.14(2)(b) applies, the daily volume-weighted average VOC content shall be calculated by using the following equation:

$$VOC_C = \left[ \sum_{i=1}^{n} C_i V_i \right] / V_T$$

where:

VOCC is the volume-weighted average VOC content of 2 or more inks applied on a printing line during any day in percent VOC by volume, excluding water

i is the subscript denoting an individual ink

n is the number of different inks subject to the same emission limitation applied during any day on a printing line

$C_i$ is the VOC content of each ink (i) applied during any day on the printing line in percent VOC by volume, excluding water

$V_i$ is the volume of each ink (i), excluding water, applied during any day on the printing line in liters (gallons)

$V_T$ is the total volume of all n inks subject to the same emission limitation, excluding water, applied during any day on the printing line in liters (gallons)

(c) An owner or operator of a coating or printing line subject to an emission limitation in this chapter not specified in par. (a) or (b) may comply by means of this subsection only by obtaining prior department approval through an order issued under s. 144.31(2)(b), Stats., or through a permit. Any approval granted by the department under this paragraph shall be submitted to, and will not become effective for federal purposes until aproved by, the administrator of the U.S. environmental protection agency or designee as a source-specific revision to the department's state implementation plan for ozone.

(2) GENERAL METHODS. The surface coating emission limitations shall be achieved by:

(a) The application of low solvent content coating technology; or

(b) A vapor recovery system which recovers the solvent for reuse; or

(c) Incineration or catalytic oxidation, provided that 90% of the nonmethane VOCs (VOC measured as total combustible carbon) which enter the incinerator or oxidation unit are oxidized to nonorganic compounds; or

(d) An equivalent system or approach demonstrated to reliably control emissions to a level at or below the applicable emission limit and approved by the department. Any approval granted by the department under this paragraph shall be submitted to, and will not become effective for federal purposes until approved by, the administrator of the U.S. environmental protection agency or designee as a source-specific revision to the department's state implementation plan for ozone.

(3) HIGH TRANSFER EFFICIENCY COATING APPLICATION. (a) Surface coating operations covered under ss. NR 422.09 to 422.11 and 422.15 have the added option of achieving compliance with the emission limitation through the use of an alternative control method or system involving a high transfer efficiency coating application system, either when used alone or in conjunction with low solvent content coating technology.

(b) Compliance under the option provided in this subsection must be approved by the department. This requires that:

1. The design, operation and efficiency of the application system must be certified in writing by the owner or operator and submitted to the department for approval, and

2. The solvent usage per coated part for application system must be less than or equal to the solvent usage per coated part at the applicable emission limitation using baseline transfer efficiency.

(c) Each alternative control method or system approval granted by the department under this subsection shall be submitted to, and will not become effective for federal purposes until approved by, the administrator of the U.S. environmental protection agency or designee as a source-specific revision to the department's state implementation plan for ozone.

(4) CAPTURE SYSTEMS. The design, operation and efficiency of any capture system used in conjunction with sub. (2)(b), (c) or (d) shall be certified in writing by the owner or operator. The efficiency of the capture system is subject to approval by the department and, for sources covered under ss. NR 422.05 to 422.135 or 422.145 to 422.155, the efficiency of the capture system shall be great enough to insure that the emissions for any day from the controlled line are less than or equal to the amount determined using the following equation:

$$E = \sum_{i=1}^{n} ( A_i B_i C_i / D_i )$$

where:

E is the total allowable daily emissions of VOCs in kilograms (pounds) from all coatings or inks subject to the same numerical emission limitation and applied on the controlled line

i is the subscript denoting an individual coating or ink

n is the number of different coatings or inks applied

$A_i$ is the allowable emission rate for the coatings or inks pursuant to ss. NR 422.05 to 422.135 and 422.145 to 422.155 in kilograms per liter (pounds per gallon) of coating or ink, excluding water, delivered to the applicator

$B_i$ is the amount of coating material or ink in liters (gallons), delivered to the applicator during the actual production day

$C_i$ is the volume fraction of solids in the coating or ink, delivered to the applicator during the actual production day

$D_i$ is the theoretical volume fraction of solids in the coating or ink necessary to meet the allowable emission rate pursuant to ss. NR 422.05 to 422.135 and 422.145 to 422.155 calculated from:

$$D_i = 1 ) [A_i/P_i]$$

where:

$P_i$ is the density of the VOC used in the coating or ink delivered to the applicator during the actual production day in kilograms per liter (pounds per gallon). If the coating or ink does not contain any VOCs, or if the actual VOC density cannot be demonstrated by the owner or operator, a value of 0.88 kilograms per liter (7.36 pounds per gallon) shall be used for P.

**Federal Citation Number:**
**NR154.25(4)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Procedures for Alteration of Permits by Petition
*Subheading:* Department Decision
*Item Subpart:* The Department May Alter The Permit In Response To A Petition For Alteration
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR491.05
*State Effective Date:*

**Regulatory Text**

(4) DEPARTMENT DECISION. The department may alter the permit in response to a petition for alteration. The department's decision under this subsection is effective unless a hearing on the decision is requested under s. 144.403, Stats. If the permit holder files a petition with the department within the time limit specified under s. 144.403 (1) (a), Stats., the air pollution control permit remains unaltered and in effect until 10 days after service of the decision issued under s. 144.403 (1), Stats., on the matter or a later date established by court order. If a person other than a permit holder files a petition for review with the department under s. 144.403, Stats., the department may stay the effect of its decision under this subsection pending the department's decision under s. 144.403, Stats., in accordance with s. 227.09 (1) (g), Stats. A stay may be granted only if the party seeking the stay has demonstrated that there is good cause for granting the stay and that the petitioner has a reasonable probability of success on the merits of the petition.

**Federal Citation Number:**
**NR154.25(2)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Procedures for Alteration of Permits by Petition
*Subheading:* Notice and Public Comment
*Item Subpart:*
*Federal Effective Date:* 07/25/86

*State SIP Citation#:* NR491.03
*State Effective Date:*

**Regulatory Text**

(2) NOTICE AND PUBLIC COMMENT.

(a) The department shall provide written notice of the petition for alteration by publishing a class 1 notice under ch. 985, Stats., and by distributing a written notice to the persons listed under s. 144.392 (5) (a), Stats. The written notice shall contain a brief notice of the opportunity for written public comment on the petition, and a notice of the opportunity to request a noncontested case public hearing on the petition.

(b) The department shall receive public comment on the petition for alteration for a 30-day period beginning when the department gives notice under par. (a).

**Federal Citation Number:**
**NR154.25(1)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Procedures for Alteration of Permits by Petition
*Subheading:* Petition for Alteration
*Item Subpart:* Procedure
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR491.025
*State Effective Date:*

**Regulatory Text**

NR 154.25 PROCEDURES FOR ALTERATION OF PERMITS BY PETITION.

(1) PETITION FOR ALTERATION. Any person holding an air pollution control permit who seeks an alteration of the permit shall file a written petition for alteration of the permit with the department. The petition shall identify the permit to be altered, outline the specific provisions for which alteration is sought, and set forth the reasons why alterations sought. The petition shall be signed by the permit holder and shall be served on the secretary, either by personal delivery to the office of the secretary, or by mailing to the secretary at the following address: P.O. Box 7921, Madison, Wisconsin 53707.

**Federal Citation Number:**
**NR154.25(3)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Procedures for Alteration of Permits by Petition
*Subheading:* Public Hearing
*Item Subpart:* Holding of a Noncontested Case Public Hearing
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR491.04
*State Effective Date:*

**Regulatory Text**

(3) PUBLIC HEARING. The department may hold a noncontested case public hearing on the petition for alteration if a request for public hearing is received by the department under s. Nr 154.24 within 30 days after the department gives notice under sub. (2) (a) and the department determines that there is a significant public interest in holding the hearing. A request for public hearing shall indicate the interest of the party filing the request and the reasons why a hearing is warranted. Any noncontested case public hearing held under this section shall be conducted in accordance with the procedures in s. NR 154.24.

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Procedures for Noncontested Case Public Hearings
*Subheading:* Conduct of Hearing
*Item Subpart:* Procedure for hearing
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR 490.04
*State Effective Date:*

**Regulatory Text**
(3) CONDUCT OF HEARING.

(a) The presiding officer will open the hearing and make a concise statement of the scope and purposes of the hearing. Appearances will then be entered on the record. A person desiring to participate in the hearing shall enter his or her appearance in person by giving his or her name and address and the name and address of any party the person is representing and the capacity in which he or she is representing the party. Persons entering their appearance at the hearing may make statements and offer evidence relevant to the scope and purposes of the hearing. The hearing will be closed upon completion of the statements and submission of the evidence.

(b) The hearing may be tape recorded by the department. If the hearing is recorded and a transcript of the hearing is made by the department, copies will be furnished to any person who requests a transcript upon payment of a reasonable fee. If the hearing is recorded and no transcript is deemed necessary by the department and a person requests that one be prepared, the department instead will provide the person a copy of the tape recording of the hearing upon payment of a reasonable fee.

(c) The presiding officer will prepare a summary of the hearing for use by the department.

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Procedures for Noncontested Case Public Hearings
*Subheading:* Form and Service of Request
*Item Subpart:* Format For Form
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR490.025
*State Effective Date:*

**Regulatory Text**

NR 154.24 PROCEDURES FOR NONCONTESTED CASE PUBLIC HEARINGS.

(1) FORM AND SERVICE OF REQUEST.

(a) Any person, state or agency authorized to request a public hearing under s. 144.392 (7) (a), 144.39 (5) (a) or 144.397 (4) (a), Stats., shall submit such request in a form which complies with the applicable statutory requirements. The following format is a suggested format for requesting a public hearing:

To The Department of Natural Resources:

REQUEST FOR NONCONTESTED CASE PUBLIC HEARING

The undersigned hereby requests a noncontested case public hearing on the (air pollution control permit application submitted by _____ to the department on _____, 19_____) (operation permit issued by the department to _____ on _____, 19_____) under section 144.,392 (7) (a), 1443925 (5) (a) or 144.,397 (4) (a), Stats., as appropriate.

The requestors' interest in filing the request is _____
_____
The reasons why a public hearing is warranted are
_____
Date of Request _____
Signature _____
Name and Address _____

(b) A request for a public hearing under this subsection shall be submitted to the department within 30 days after the publication of the class 1 notice under ch. 985, Stats., announcing the opportunity to request a public hearing on the permit or permit application. Requests for hearings shall be mailed or personally delivered to the department to the person and the address specified in the notice.

**Federal Citation Number:**
**NR154.24(2)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Procedures for Noncontested Case Public Hearings
*Subheading:* Notice of Hearing
*Item Subpart:*
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR490.03
*State Effective Date:*

**Regulatory Text**
(2) NOTICE OF HEARING.

(a) If the department receives a request for a hearing under sub. (1) and the department determines that there is a significant public interest in holding a hearing, the department may hold a public hearing and, if a hearing is held, shall close the record of the public hearing within 70 days after the deadline for requesting a hearing. Not less than 10 days prior to the public hearing, the department shall publish a class 1 notice under ch. 985, Stats., announcing the hearing and shall serve a written notice of the hearing on the requestor, the permit applicant or permit holder and persons listed under s. 144.392 (5) (a) 2. to 5., Stats. The department may serve the notice of hearing by personal delivery or by mailing a copy of the notice to the last known post office address of the person to be served in a sealed envelope with first class postage prepaid.

(b) The notice of hearing shall contain the date, time and location of the hearing, the statutory authority for the hearing, a short summary of the matter to be considered and such other information as the department may deem appropriate.

**Federal Citation Number:**
**NR154.24(4)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Procedures for Noncontested Case Public Hearings
*Subheading:* Written Comments
*Item Subpart:* Persons Not Appearing at Public Hearing
*Federal Effective Date:* 07/25/86
*State SIP Citation#:* NR154.490.05
*State Effective Date:*

**Regulatory Text**

(4) WRITTEN COMMENTS. Any person may submit written comments on the permit application or permit review to the department during the public comment period provided for in the public notice or at any public hearing held. All written comments submitted to the department during the public comment period will have the same weight and effect as statements made by persons appearing at a public hearing.

**Federal Citation Number:**
**154.06(9)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Reporting, Recordkeeping, Testing, Inspection and Demonstration of Compliance Requirements
*Subheading:* Malfunction Prevention and Abatement Plans
*Item Subpart:*
*Federal Effective Date:* 05/11/81
*State SIP Citation#:* 154.06(9)
*State Effective Date:*

**Regulatory Text**

(9) MALFUNCTION PREVENTION AND ABATEMENT PLANS.

(a) The owner or operator of any direct or portable source which may emit hazardous substances or emits more than 15 pounds in any day or 3 pounds in any hour of any air contaminant for which air standards have been adopted shall prepare a malfunction prevention and abatement plan to prevent, detect and correct malfunctions or equipment failures which may cause any emissions limitation to be violated or which may cause air pollution. The plan shall be in writing, updated as needed, and shall include:

1. Identification of the individual(s) responsible for inspecting, maintaining, and repairing the air pollution control equipment.

2. The maximum intervals for inspection and routine maintenance.

3. A description of the items or conditions that will be checked.

4. A listing of materials and spare parts that will be maintained in inventory.

5. An identification of the source and air pollution control equipment operation variables that will be monitored in order to detect a malfunction or failure; the correct operating range of these variables; and a description of the method of monitoring or surveillance procedures, or a reference to specific pages containing this information in manuals or other documents kept by the owner or operator.

6. A description of the corrective procedures that will be taken in the event of a malfunction or failure in order to achieve and maintain compliance with the applicable emission limitations as expeditiously as possible but not longer than the time necessary to discontinue operation of the source consistent with safe operating procedures.

7. Such other information as the department shall deem pertinent.

(b) The department may order any owner or operator to submit the plan required by par. (a) for review and approval. The department may amend the plan if deemed necessary for malfunction prevention or the reduction of excess emissions during malfunctions.

(c) No owner or operator shall fail to carry out a plan required under part. (a or as amended under par. (b).

**Federal Citation Number:**
**154.06(5)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Reporting, Recordkeeping, Testing, Inspection and Demonstration of Compliance Requirements
*Subheading:* Methods and Procedures for Source Testing
*Item Subpart:*
*Federal Effective Date:* 05/11/81
*State SIP Citation#:* 154.06(5)
*State Effective Date:*

**Regulatory Text**

(5) METHODS AND PROCEDURES FOR SOURCE TESTING.

(a) The department shall be notified 10 days in advance of stack or performance tests required by the department to afford it the opportunity to have a representative present to witness the testing procedures. Said notice shall provide a test plan which includes:

1. A description of the sampling equipment.

2. A description of the processes, operations, and equipment venting to the stack.

3. A description of process or operation variables which affect the air contaminant source's emissions.

(b) Sources of air contaminants other than volatile organic compounds.

1. The test plan required under par. (a) shall include, in addition to the information required under par. (a), a sketch or sketches showing the relative position and elevations of all processes or operations venting to the test stack and also the position of the sampling ports relative to the nearest upstream and downstream gas flow disturbance, and a cross sectional sketch showing:

a. Stack configuration at the sampling location.

b. Sampling port locations.

c. Sampling point positions of each port.

2. The department may require: Provision for sampling ports, a safe work area for test crews, safe access to the sampling platform, utilities for sampling and testing equipment, stack or performance tests performed by or under the direction of a qualified engineer or person with demonstrated ability in this field, instrumentation to monitor and record emission data, stack or performance tests performed in compliance with emission test guidelines developed by the department and submitted to the tester prior to the conducting of the test, or transfer of the test data sheets or sample collecting media to the department's witness for evaluation.

3. Performance tests or stack tests shall follow the guiding principles described in ASME performance test code 27 with a sampling train utilizing a velocity measuring probe during sampling and an integrating gas volume meter for existing direct or portable sources, or sampling methods required or approved by the United States environmental protection agency for direct or portable sources and for hazardous pollutants. Other sampling methods may be prescribed by the department or must have prior approval of the department.

Note: See American Society of Mechanical Engineers Performance Test Code 27, copyright 1957. Copies of PTC-27-1957 are available for inspection in the offices of department of natural resources, and secretary of state and revisor of statutes, Madison, Wisconsin, and may be obtained for personal use from the American Society of Mechanical Engineers, 345 East 47th Street, New York, N.Y. 10017.

(c) Volatile organic compound sources.

1. The owner or operator of any volatile organic compound source to which sec. NR 154.13 applies shall demonstrate compliance by methods approved by the department.

2. The results of volatile organic compound emissions compliance testing shall only be accepted if prior notification has been supplied to the department as required under par. (a).

(6) INSTRUMENTATION FOR AIR POLLUTION CONTROL EQUIPMENT.

(a) The department may require provisions for instrumentation to determine the efficiency of control equipment. Such instrumentation may include devices to measure voltage, or pressure drop across the control equipment; amperage, exhaust flow rates, or scrubbing solution flow rates to, or in, the control equipment; temperature in the control equipment; or other information determined to be necessary by the department.

**Federal Citation Number:**
**154.06(2)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Reporting, Recordkeeping, Testing, Inspection and Demonstration of Compliance Requirements
*Subheading:* Reporting
*Item Subpart:*
*Federal Effective Date:* 05/11/81
*State SIP Citation#:* 154.06(2)
*State Effective Date:*

**Regulatory Text**
(2) REPORTING.

Formerly NR 154.031

(a) When requested by the department, a person shall furnish to the department information to locate and classify air contaminant sources according to the type, level, duration, frequency and other characteristics of emissions and such other information as may be necessary. The information shall be sufficient to evaluate the effect on air quality and compliance with these rules.

(b) The owner or operator of a source requested to submit information under par. (a) may subsequently be required to submit annually, or at such other intervals as specified by the department, reports detailing any changes in the nature of the source since the previous report and the total annual quantities of the air contaminants emitted.

(c) When requested by the department, the owner or operator of a source to which this chapter applies shall submit to the department a standard operating procedure which includes a detailed description of process and emission control equipment startup, operating and shutdown procedures designed to minimize emissions.

(d) When stack or performance tests required by the department are performed by a person other than the department, the test results shall be furnished to the department within 30 days unless the department provides, in writing, a 30-day extension of this deadline. Results of stack or performance tests submitted to the department shall include information from the instrumentation specified in subsection (5) taken at the time of the tests, along with copies of the original data sheets, nozzle and stack diameter, weight of material sampled and other information needed to evaluate the stack or performance tests.

(e) The department shall furnish a report of stack or performance tests or inspections it conducts to a representative of the source within 60 days after the testing or inspection is completed.

(f) Except where subsection (1) requires immediate notice of hazardous substance air spills, a person shall report to the department within 8 hours following the onset of a malfunction or other event not reported in advance to the department which causes or may cause any emission limitation, including: the visual emission limit, to be violated. A person shall also report to the department emissions in excess of the emissions provided for in a plan approved pursuant to NR 154.09 (1)(b). The person shall report the cause and duration of the violation, the period of time considered necessary for correction, and measures taken to minimize emissions during the period.

(g) A person required to operate a continuous monitoring system or monitoring device shall notify the department within 1 week of any shutdown, breakdown, or malfunction of such device or system.

(h) A person shall report to the department in advance schedules for planned shutdown and startup of air pollution control equipment and the measures to be taken to minimize the down time of the control equipment. Scheduled maintenance or startup of other equipment which causes an emission limitation to be exceeded shall also be reported in advance to the department. Advance reporting under this paragraph shall not relieve any person from the duty to comply with any applicable emission limitation.

**Federal Citation Number:**
**154.06(4)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Reporting, Recordkeeping, Testing, Inspection, and Demonstration of Compliance Requirements
*Subheading:* Access to Records
*Item Subpart:*
*Federal Effective Date:* 05/11/81
*State SIP Citation#:* 154.06(4)
*State Effective Date:*

**Regulatory Text**

(4) ACCESS TO RECORDS.

(a) No person shall deny information or access to records relating to emissions to an authorized representative of the department.

**Federal Citation Number:**
**154.06(8)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Reporting, Recordkeeping, Testing, Inspection, and Demonstration of Compliance Requirements
*Subheading:* Circumvention
*Item Subpart:*
*Federal Effective Date:* 05/11/81
*State SIP Citation#:* 154.06(8)
*State Effective Date:*

**Regulatory Text**
(8) CIRCUMVENTION.

(a) No person shall cause, allow or permit the installation or use of any article, machine, equipment, process, or method, which conceals an emission which would otherwise constitute a violation of an applicable rule unless written approval has been obtained from the department. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance and the unnecessary separation of an operation into parts to avoid coverage by a rule that applies only to operations larger than a specified size.

**Federal Citation Number:**
**154.06(7)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Reporting, Recordkeeping, Testing, Inspection, and Demonstration of Compliance Requirements
*Subheading:* Entry for Inspection
*Item Subpart:*
*Federal Effective Date:* 05/11/81
*State SIP Citation#:* 154.06(7)
*State Effective Date:*

**Regulatory Text**
(7) ENTRY FOR INSPECTION.

(a) No person shall deny entry at any reasonable time to an authorized representative of the department for purposes of inspection, or at any time when an air pollution episode condition exists or is believed imminent.

**Federal Citation Number:**
**154.06(1)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Reporting, Recordkeeping, Testing, Inspection, and Demonstration of Compliance Requirements
*Subheading:* Notice of Hazardous Substance Air Spills
*Item Subpart:*
*Federal Effective Date:* 05/11/81
*State SIP Citation#:* 154.06(1)
*State Effective Date:*

**Regulatory Text**
NR 154.06 is repealed and recreated to read:

NR 154.06 Source reporting, recordkeeping, testing, inspection and operation.

(1) NOTICE OF HAZARDOUS SUBSTANCE AIR SPILLS.

(a) Persons possessing or controlling a hazardous substance shall immediately notify the department of any hazardous emission not in conformity with a permit or allowed by the department under this chapter. Notice shall be given as required by section 144.76,Wis. Stats., and Chapter NR 158, Wisconsin Administrative Code.

**Federal Citation Number:**
**154.06(3)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Reporting, Recordkeeping, Testing, Inspection, and Demonstration of Compliance Requirements
*Subheading:* Recordkeeping
*Item Subpart:*
*Federal Effective Date:* 05/11/81
*State SIP Citation#:* 154.06(3)
*State Effective Date:*

**Regulatory Text**
(3) RECORDKEEPING.

(a) The owner or operator of any source to which this chapter applies shall maintain records of all testing and monitoring conducted under this section, records detailing all malfunctions which cause any applicable emission limitation to be exceeded, including logs to document the implementation of the plan required by sub. (9), records detailing all activities relating to any compliance schedule approved by the department under this chapter and any other records relating to the emission of air contaminants which may be requested in writing by the department.

(b) Copies of all records required under par. (a) shall be retained by the owner or operator for a period of 3 years or for such other period as may be specified by the department.

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Sulfur Emission Control in Specific Geographic Areas
*Subheading:* Brokaw RACT Sulfur Limitations
*Item Subpart:*
*Federal Effective Date:* 05/11/81

*State SIP Citation#:* 154.12(4)
*State Effective Date:*

**Regulatory Text**

(4) Brokaw RACT sulfur limitations.

(a) No person shall cause, allow or permit sulfur dioxide to be emitted to the ambient air within the geographical boundaries of the village of Brokaw, Marathon county from any direct source on which construction or modification was commenced prior to February 1, 1980 in amounts greater than:

1. Any liquid fossil fuel fired steam generating boiler:

a. Height above ground of emission point of less than 160 feet: that occurring from firing fuel oil with a sulfur content equal to or less than .22% by weight.

b. Height above ground of emission point of 160 feet or more: that occurring from firing fuel oil with a sulfur content equal to or less than 3.0% by weight.

2. Any Copeland recovery system: 113 pounds per hour.

3. Any pulp and papermill cooking acid plant: 22 pounds per hour.

4. Any pulp digester blow stack: 20 pounds per hour.

(b) When a source is subject to the emission limitations of par. (a), the owner or operator shall not exceed the following increments of progress in achieving compliance, commencing with the nonattainment determination under NR 154.03(1):

1. Submit plans for achieving compliance within 6 months.

2. Award any necessary contract within 8 months.

3. Where physical alteration of the source is necessary to achieve compliance, commence construction within 10 months and complete construction within 20 months.

4. Where only fuel modification or switching is necessary to achieve compliance, commence operation using new fuel within 15 months.

5. Achieve final compliance with the applicable emission limitations and so certify to the department within 3 months of completion of construction or commencement of operation using new fuel.

6. Notwithstanding the increments of progress specified in this paragraph, all sources to which par. (a) applies shall achieve final compliance and so certify to the Department on or before December 31, 1982.

**Federal Citation Number:**
**NR154.12(4)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Sulfur Emission Control in Specific Geographic Areas
*Subheading:* Brokaw RACT Sulfur Limitations
*Item Subpart:* Sulfur Dioxide Emission Limits For a Stationary Source
*Federal Effective Date:* 12/24/86
*State SIP Citation#:* NR418.025
*State Effective Date:*

**Regulatory Text**

(4) BROKAW RACT SULFUR LIMITATIONS

(a) No person may cause, allow or permit sulfur dioxide to be emitted to the ambient air within the corporate boundaries of the village of Brokaw, Marachon county from any direct stationary source on which construction or modification commenced prior to January 1,1980 in amounts greater than:

1. For any liquid fossil fuel fired steam generating boiler:

a. With an emission point of less than 160 feet in height above ground, that occurring from firing fuel oil with a sulfur content equal to or less than .22% by weight.

b. With an emission point of 160 feet or more in height above ground, that occurring from firing fuel oil with a sulfur content equal to or less than 1.)% by weight.

2. For any Copeland recovery system: 113 pounds per hour.

3. For any pulp and papermill cooking acid plant: 22 pounds per hour.

4. For any pulp digester blow stack: 20 pounds per hour.

5. Notwithstanding the emission limitations of subds. 2, 3, and 4, for an pulp and papermill Copeland recovery system, cooking acid plant and pulp digester blow system which vent to a common stack with an emission point of 160 feet or more in height above ground: 228 pounds per hour.

(b) When a source is subject to the emission limitations of par. (a), the owner or operator shall not exceed the following increments of progress in achieving compliance, commencing with the nonattainment determination under s. NR 154.03(1):

1. Submit plans for achieving compliance within 6 months.

2. Award any necessary contract within 8 months.

3. Where physical alteration of the source is necessary to achieve compliance, commence construction within 10 months and complete construction within 20 months.

4. Where only fuel modification or switching is necessary to achieve compliance, commence operation using new fuel within 15 months.

5. Achieve final compliance with the applicable emission limitations and so certify to the department within 3 months of completion of construction or commencement of operation using new fuel.

6. Notwithstanding the increments of progress specified in this paragraph, all sources to which par. (a) applies shall achieve final compliance and so certify to the department on or before December 31, 1982.

**Federal Citation Number:**
**154.12(5)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Sulfur Emission Control in Specific Geographic Areas
*Subheading:* Madison RACT Sulfur Limitations
*Item Subpart:*
*Federal Effective Date:* 05/11/81

*State SIP Citation#:* 154.12(5)
*State Effective Date:*

**Regulatory Text**
SECTION 1 - Section NR 154.12 (5) is created to read:

(5) Madison RACT sulfur limitations. (a) No person shall cause, allow or permit sulfur dioxide to be emitted to the ambient air within the geographical boundaries of the city of Madison, Dane county, from any direct source on which construction or modification was commenced prior to November 1, 1979 in amounts greater than:

1. Any fossil fuel fired steam generating boiler rated at more than 25 million BTU heat input per hour but less than 100 million BTU heat input per hour firing solid fossil fuel or solid fossil fuel in combination with solid, liquid or gaseous fuels: 7.0 pounds of sulfur dioxide per million BTU heat input.

2. Any fossil fuel fired steam generating boiler rated at equal to or greater than 100 million BTU heat input per hour firing solid fossil fuel or solid fossil fuel in combination with solid, liquid or gaseous fuels:

a. Any electrical utility boiler: 4.25 pounds of sulfur dioxide per million BTU heat input.

b. Any other boiler:

1) Height above ground of emission point of less than 180 feet: 2.5 pounds of sulfur dioxide per million BTU heat input.

2) Height above ground of emission point of 180 to 220 feet: X pounds of sulfur dioxide per million BTU heat input, where X = 10 [0.0089 (Emission Point Height) - 1.18].

3) Height above ground of emission point of more than 220 feet: 5.8 pounds of sulfur dioxide per million BTU heat input.

3. Any fossil fuel fired steam generating boiler rated at more than 25 million BTU heat input per hour firing liquid fossil fuel or liquid fossil fuel in combination with liquid or gaseous fuels:

a. Distillate fuel oil: that occurring from firing a distillate fuel oil with a sulfur content equal to or less than 0.5% by weight.

b. Residual fuel oil: that occurring from firing a residual fuel oil with a sulfur content equal to or less than 1.1% sulfur by weight.

(b) When a source is subject to the emission limitations of par. (a), the owner or operator shall not exceed the following increments to progress in achieving compliance, commencing with the nonattainment determination under NR 154.03(1):

1. Submit plans for achieving compliance within 6 months.

2. Award any necessary contracts within 9 months.

3 Where physical alteration of the source is necessary to achieve compliance, commence construction within 12 months and complete construction within 30 months.

4. Where only fuel modification or switching is necessary to achieve compliance, commence operation using new fuel within 21 months.

5. Achieve final compliance with the applicable emission limitations and so certify to the department within 3 months of completion of construction or commencement of operation using new fuel.

6. Notwithstanding the increments of progress specified in this paragraph, all boilers to which par. (a) applies shall achieve final compliance and so certify to the department on or before December 31, 1982.

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Sulfur Emission Control in Specific Geographic Areas
*Subheading:* Milwaukee RACT Sulfur Limitations
*Item Subpart:*
*Federal Effective Date:* 10/06/89

*State SIP Citation#:* 154.12.(6)
*State Effective Date:*

**Regulatory Text**

(6) MILWAUKEE RACT SULFUR LIMITATIONS.

(a) No person may cause, allow or permit sulfur dioxide to be emitted to the ambient air within the corporate boundaries of the City of Milwaukee, Milwaukee County, from any direct source on which construction or modification was commenced prior to December 1, 1983, averaged over any 24-hour period in amounts greater than specified in this paragraph.

1. Any electrical utility installation rated at more than 250 million BTU heat input per hour:

a. 3.28 pounds sulfur dioxide per million BTU heat input to any stack for solid fossil fuel, 1.60 pounds sulfur dioxide per million BTU heat input to any stack for residual fuel oil and 0.50 pounds sulfur dioxide per million BTU heat input to any stack for all other fuels, or

b. Q, when different fuels are burned in combination. Q is determined by the following equation:

$$Q = \frac{X(3.28) + Y(1.60) + Z(O.5)}{X + Y + Z}$$

where Q is the sulfur dioxide emission limit expressed in pounds sulfur dioxide per million BTU heat input to any stack, X is the percent of total heat input to any stack derived from residual fuel oil, and Z is the percent of total heat input to any stack derived from all other fuels.

2.[Reserved]

(b) When a source is subject to the emission limitations of par. (a), the owner or operator may not exceed the following increments of progress in achieving compliance, commencing on December 1, 1983:

1. Submit plans for achieving compliance within 6 months.

2. Award any necessary contracts within 9 months.

3. Where physical alteration of the source is necessary to achieve compliance, commence construction within 12 months and complete construction by November 9, 1985.

4. Where only fuel modification or switching is necessary to achieve compliance, commence operation using new fuel by August 9, 1985.

5. Achieve final compliance with the applicable emission limitations and so certify to the department by November 9, 1985.

**Federal Citation Number:**
**418.06**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Sulfur Emission Control in Specific Geographic Areas
*Subheading:* Peshtigo RACT Sulfur Limitations
*Item Subpart:*
*Federal Effective Date:* 06/05/89

*State SIP Citation#:* 418.06
*State Effective Date:*

**Regulatory Text**
NR 418.06 Peshtigo RACT sulfur limitations.

(1) No person may cause, allow or permit sulfur dioxide to be emitted to the ambient air within the corporate boundary of the city of Peshtigo, Marinette county, from any pulp, paper, or pulp and paper mill on which construction or modification was last commenced prior to October 1, 1984 in amounts greater than:

(a) From any liquid fossil fuel and natural gas fired steam generating boiler, with the emission point at a height above ground of less than 55 feet, 0.520 pounds per million BTU heat input.

(b) From any liquid fossil fuel, natural gas and wood refuse fired steam generating boiler, with the emission point at a height above ground of more than 149 feet, 0.520 pounds per million BTU heat input.

(c) From any spent sulfite liquor incinerator and evaporation plant emitting from a point 197 feet or more above ground, 1,682.00 pounds per hour and 35,184.00 pounds in any 24 hours.

(d) From all pulp digesters emitting from a point 100 feet or more above ground, 300.00 pounds in any 3 hours and 1,365.00 pounds in any 24 hours.

(e) From any air contact evaporator emitting from a point 35 feet or more above ground, 33.02 pounds per hour and 686.88 pounds in any 24 hours.

(f) From any evaporator building emitting from a point 87 feet or more above ground, 6.10 pounds per hour.

(g) From all other sources, a total of 0.72 pounds per hour.

(2) When a source is subject to sub. (1), the owner or operator shall meet the following deadlines in achieving compliance with the emission limitations of sub. (1):

(a) Achieve compliance with sub. (1) (a), (b), (c), (e), and (f) by October 1, 1984 and so certify to the department before November 1, 1984.

(b) Submit plans for achieving compliance with the emission limitations of sub. (1)(d) before April 1, 1985.

(c) Award contracts for physical alterations necessary to achieve compliance with sub. (1)(d) before May 1, 1985.

(d) Commence construction necessary to achieve compliance with sub. (1)(d) before August 1, 1985.

(e) Complete construction necessary to achieve compliance with sub. (1)(d) before November 1, 1986.

(f) Achieve compliance with the emission limitations of sub. (1)(d) and so certify to the department before November 20, 1986.

(3) The owner or operator of a source subject to sub. (1) shall prepare and maintain a compliance demonstration plan to assure continuous compliance with the emission limitations of sub. (1).

(a) The plan shall be in writing, updated as needed, and shall include but need not be limited to:

1. The name of the individual responsible for compliance demonstration activities at the source.

2. A description of the stacks, vents, raw materials, fuels and other items or parameters which will be tested, monitored, sampled, analyzed or measured to determine that the source is in compliance with sub.(1).

3. A description of the testing methods, monitoring techniques, sampling and analysis methods and measurements which will be used, including the types of equipment to be used and the frequency of testing, monitoring, sampling, analysis or measurement.

4. A description of the records which will be created and maintained, their retention time, and the periodic reports which will be submitted to the department to demonstrate that the emission limitations of sub. (1) are being met.

5. A procedure for detecting and reporting upsets, malfunctions and other events which may result in the violation of an emission limitation of which may affect the quantity or quality of compliance demonstration data.

6. Other relevant information reasonably needed to demonstrate continuous compliance with the emission limitations of sub. (1).

(b) The plan shall be filed with the department before November 1, 1984. Subsequent revisions to the plan shall be filed within 10 days of their completion.

(c) The department may order any owner or operator of a source subject to sub. (1) to submit the plan required by this subsection for review and approval. The department may amend the plan if deemed necessary to assure that continuous compliance is adequately demonstrated and to recognize changes in the economic or technological feasibility of different compliance demonstration methods.

(d) No owner or operator may fail to carry out the plan required under this subsection or as amended by the department under par.(c).

(e) Nothing in this subsection precludes the department from exercising its authority to require reporting or recordkeeping in addition to that required by this subsection or exempts the owner or operator of a source subject to sub. (1) from any other requirements relating to proof of compliance.

(4) No owner or operator of a source subject to sub. (1) may cause, allow or permit sulfur dioxide to be emitted from emission points lower than these which existed at the source on December 1, 1983, unless written permission has been granted by the department.

**Federal Citation Number:**
**NR154.12(10)**

Last Updated: 10/17/96

**State:** **Wisconsin**
*Chapter Title:* Wisconsin Department of Natural Resources
*Main Heading:* Sulfur Emission Control in Specific Geographic Areas
*Subheading:* Rothschild RACT Sulfur Limitations
*Item Subpart:* Emission Limits
*Federal Effective Date:* 04/26/90

*State SIP Citation#:* NR418.08
*State Effective Date:*

**Regulatory Text**

NR 154.12(10) ROTHSCHILD RACT SULFUR LIMITATIONS.

(a) No person may cause, allow or permit sulfur dioxide to be emitted to the ambient air within the corporate boundary of the village of Rothschild, Marathon county, from any direct source on which construction or modification was last commenced prior to (effective date) in amounts greater than those specified in this paragraph.

1. At any pulp, paper, or pulp and paper mill:

a. From any fossil fuel fired boiler, 0.52 pounds per million BTU heat input.

b. From any fossil fuel fired boiler which can also burn wood, 0.025 pounds per million BTU heat input.

c. From all pulp digesters, a total of 4,050 pounds in any 3 hours and 16,200 pounds in any 24 hours.

d. From all acid towers not being loaded with stone, acid plant vent, and Kimberly Clark direct contact cooler with a common emission point, 16.0 pounds per hour.

e. From any acid tower being loaded with stone, 52.0 pounds in any day during which stone is loaded.

f. From all other sources, a total of 0.2 pounds per hour.

2. At any calcium-based spent sulfate liquor processing facility:

a. From any evaporator with an emission point 87 feet or more above ground, 16.2 pounds per hour.

c. From all other sources, a total of 4.0 pounds per hour.

(b) When a source is subject to par. (a), the owner or operator shall meet the following deadlines in achieving compliance with the emission limitations of that paragraph:

1. Submit plans for achieving compliance to the department before June 1, 1985 for sources covered by par. (a)1.a.,b.,c.,d. and f. and before July 1, 1985 for sources by par. (a)2.a. and b.

2. Order principal components and equipment needed to achieve compliance before July 1, 1985 for sources covered by par. (a)1.d. and f. and before September 1, 1985 for sources covered by par. (a)2.a. and b.

3. Where physical alteration of the source is necessary to achieve compliance, commence construction before September 1, 1985 for sources covered by par. (a)1.d. and f. and before May 1, 1986 for sources covered by par. (a)2.a. and b.

4. Complete construction of necessary physical alterations of the source before January 1, 1986 for sources covered by par. (a)1.d and f. and before July 1, 1986 for sources covered by par. (a)2.1. and b.

5. Where fuel modification or switching is necessary to achieve compliance, commence operation using new fuel before January 1, 1986 for sources covered by par. (a)1.a. and b.

6. Achieve final compliance with the emission limitations of par. (a) and so certify to the department before February 1, 1985 for sources covered by par. (a)1.e and 2.c.; before July 1, 1985 for sources covered by par. (a)1.c.; before January 1, 1986 for sources covered by par. (a)1.a.,b.,d. and f.; and before September 1, 1986 for sources covered by par. (a)2.a. and b.

(c) The owner or operator of a source subject to par. (a) shall prepare and maintain a compliance demonstration plan to assure continuous compliance with the emission limitations of that paragraph.

1. The plan shall be in writing, updated as needed, and shall include but need not be limited to:

a. The name of the individual responsible for compliance demonstration activities at the source.

b. A description of the stacks, vents, raw materials, fuels and other items or parameters which will be tested, monitored, sampled, analyzed or measured to determine that the source is in compliance with par. (a).

c. A description of the testing methods, monitoring techniques, sampling and analysis methods and measurements which will be used, including the types or equipment to be used and the frequency of testing, monitoring, sampling, analysis or measurement.

d. A description of the records which will be created and maintained, their retention time, and the periodic reports which will be submitted to the department to demonstrate that the emission limitations of par. (a) are being met.

e. A procedure for detecting and reporting upsets, malfunctions and other events which may result in the violation of an emission limitation or which may effect the quantity or quality of compliance demonstration data.

f. Other relevant information reasonably needed to demonstrate continuous compliance with the emission limitations of par. (a).

2. The plan shall be filed with the department before (1 month after effective date). Subsequent revisions to the plan shall be filed within 10 days of their completion.

3. The department may order any owner or operator of a source subject to par. (a) to submit the plan required by this paragraph for review and approval. The department may amend the plan if deemed necessary to assure that continuous compliance is adequately demonstrated and to recognize changes in the economic or technological feasibility of different compliance demonstration methods.

4. No owner or operator may fail to carry out the plan required under this paragraph or as amended by the department under subd. 3.

5. Nothing in this paragraph precludes the department from exercising its authority to require reporting or recordkeeping in addition to that required by this paragraph or exempts the owner or operator of a source subject to par. (a) from any other requirements relating to proof of compliance.

(d) No owner or operator of a source subject to par. (a) may cause, allow or permit sulfur dioxide to be emitted from emission points lower than those which existed at the source on December 1, 1983, unless written permission has been granted by the department.